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VAISALI EXCAVATIONS : 1950



VAZALI TAVANAKH MAZIAN

# VAISALI EXCAVATIONS : 1950

By

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## PREFACE

**T**HE Vaiśālī Sangh which was formed in 1945 and which has been holding an annual cultural festival near the ruins of ancient Vaiśālī since then, has had on its programme the undertaking of archaeological excavations which may throw new light upon the history of the ancient republic and of this part of India. Back in 1948 steps were taken by the Vaiśālī Sangh to raise funds for archaeological excavations which had not been resumed in Vaiśālī after 1913. Instead of depending wholly on government, the Sangh decided to give the lead by raising funds from private sources. In this task of raising funds members of the Jain community were particularly helpful. As a result of their efforts and of Shri Jagannath Prasad Sah, Secretary-in-charge Vaiśālī Sangh, a sum of Rs. 7,109 was raised in a short time. The names of the donors are given elsewhere. We are extremely grateful to the donors who by providing funds for archaeological excavations have demonstrated their sincere interest in what may be called 'fundamental' culture apart from their noble sentiments of devotion and piety.

The Archaeological Department of the Government of India was approached for permission to undertake excavations and for lending the services of Shri Krishna Deva, who was then Superintendent of Archaeological Survey, Patna Circle. The Government of India appreciated the initiative shown by a private body like the Vaiśālī Sangh and gladly gave their consent on condition that half of the relics and antiquities obtained as a result of the excavations would be made available to the Government of India.

Near about that time a request was made to the Vice-Chancellor of the Patna University through the late Dr. A.S. Altekar to permit Shri Vijayakanta Mishra who was then in the Department of Ancient Indian History and Culture of the Patna University, to assist Shri Krishna Deva during the excavations and also to help in the preparation of the report. Shri Mishra later joined the K.P. Jayaswal Research Institute and the Archaeological Department and has been associated with the work at all stages.

The Vaiśālī Sangh is grateful to Shri Krishna Deva for making such a scientific survey and conducting excavations with a uniform sense of precision and authenticity and to Shri Vijayakanta Mishra for the devotion and hard work he has given to this task. There is no doubt that these excavations paved the way for the series of excavations which were subsequently undertaken by the K.P. Jayaswal Research Institute and the results of the work of both Shri Krishna Deva for the Vaiśālī Sangh and of the late Dr. A.S. Altekar and others for the Jayaswal Institute have cumulatively thrown a flood of light on the history and life of ancient Vaiśālī.

The preparation of this report has been delayed owing to unavoidable reasons, but its results are of such lasting value that this delay will, we hope, in no way detract from the contribution it makes to the history of Vaiśālī.

J. C. MATHUR  
General Secretary  
Vaiśālī Sangh

October, 1960.

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## LIST OF DONORS

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## ABBREVIATIONS

*A.S.I., A.R.*—Archaeological Survey of India, Annual Report.  
*J.I.S.O.*—Journal of Indian Society of Oriental Art.  
*J.N.S.I.*—Journal of the Numismatic Society of India.





## INTRODUCTORY

## A. VAISALI IN LITERATURE

**V** AISALI (25° 58'20" N. lat. and 80° 11'30" E. long.) now represented by Basārḥ and the neighbouring villages located in the district of Muzaffarpur of North Bihar, is one of the oldest cities of India, with an immense wealth of tradition and historical legend. Archaeologically, it is one of the richest sites of India and its antiquity goes back to the time of the Buddha and beyond. According to the *Rāmāyaṇa*, the Ikshvāku queen Alambushā had a son named Viśāla who founded the city and named it *Viśālā-purī*. The *Rāmāyaṇa* also mentions that when Rāma and Lakshmaṇa along with Viśvāmitra crossed the river Gaṅgā and came to its northern bank on their way to Mithilā, they had a view of the city of Viśālā. King Viśāla is also mentioned in some of the Purāṇas, e.g., *Varāha*, *Nārada*, *Mārkaṇḍeya* and *Bhāgavata*. Vardhamāna Mahāvīra, the last Jain Tīrthaṅkara was born here. Gautama Buddha also frequently visited the place and is intimately associated with this city. Many a legend is woven round the Buddha's admiration for the Lichchhavis of Vaiśālī and his benign favour to Ambaṇālī, the handsomest courtesan of the city. Vaiśālī is further celebrated in the history of Buddhism as the site of the second Buddhist Council.

According to the Buddhist traditions, the city of Vaiśālī was encompassed by three walls at a distance of a *gāvuta* from one another and had gates at three places with watch-towers and buildings.<sup>1</sup> The Tibetan *Dulva* says that the Vaiśālī city was divided into three parts inhabited respectively by the rich, middle and lower classes. According to the Jaina traditions, *Kṣatriya*, *Brāhmaṇa* and *Vanik* were three *upanagaras* of Vaiśālī. Literary traditions affirm that there were three city-walls of ancient Vaiśālī. Out of these three, remains of two city-walls made of mud-ramparts have been found. The first is now known as *Rājā-Viśāla-kā-Garh* at Basārḥ which is a citadel site enclosed on all sides by mud-walls and a moat (pl. I). The remains of a second and much larger city-wall have been traced extending in a straight line over a length of more than a mile running from the present village of Konsā to Dharārā, situated about half a mile south of *Rājā-Viśāla-kā-Garh*.

When one looks at the landscape of modern Basārḥ and the neighbouring villages one is struck by the extremely fertile well-watered plains dotted with numerous mounds and tanks. There are several small sheets of water to the north and west of the Garh. The traditional belief is that there were fifty-two tanks around Vaiśālī. Quite a few still exist e.g., Bāwan Pokhar, Ghoghā Pokhar, Khairāunā Pokhar traditionally believed to be the *Abhisheka-pushkariṇī*, Gangāsāgar, etc. There are a number of ruined *stūpas* in and around Basārḥ. To the south-west of the Garh in the heart of the Basārḥ village stands a large brick-built *stūpa*, built over by the tomb of a Muslim saint which is popularly known as the Dargah of Miran Shah. *Stūpas* have also been found at the neighbouring villages of Mārpasaunā, Madhuban and Bakhrā, the last showing twin earthen *stūpas* of the earlier type, now known as *Bhimsen-kā-Pallā* (pl. II). Not far from Bhimsen-kā-Pallā is situated the uninscribed

<sup>1</sup> *Jātaka*, Fausböll I, p. 504. वेसालिनगरं गाव्युतगाव्युतन्तरे त्रीणि पाकारेहि परिक्षित्तं तीसु ठानेसु गोपुरद्वालोकयुतं ।



Mauryan lion pillar of Bakhra, which is clustered round by the remains of an ancient brick *stupa*, a tank identified by Cunningham as *Markaṭa-hrada* of the Buddhist tradition and ruined *chaityas*. Recently a flat low *stupa* was excavated by the late Dr.A.S. Altekar who identified it with one of the original relic-*stūpas* of the Buddha built by the Lichchhavis in the sixth century B. C.<sup>1</sup>

## B. PREVIOUS WORK

The identification of modern Basārḥ containing the Garh of Rājā Viśāla with *Vaiśālī*, of the present villages of Baniyā with *Vanijagrāma*, of Bāsokund with *Kuṇḍagrāma*, and of Kolhuā with *Kollāga* are quite plausible. Modern village names like Bodhā and Bhagavānpur and Ānandpur also appear to be reminiscent of the intimate association of the place with Lord Buddha and his favourite disciple Ānanda, whose relics, according to the Buddhist tradition and the accounts of the Chinese travellers were enshrined in a *stupa* at Vaiśālī.

Such is the place as attracted a number of earlier scholars and archaeologists who noticed the antiquities of the site or conducted archaeological excavations. This place was first visited and noticed by J. Stephenson in 1834.<sup>2</sup> He was followed by Alexander Cunningham who visited it between 1862 and 1864 and described its antiquities.<sup>3</sup> T. Bloch of the Archaeological Survey was the first archaeologist to conduct excavations here at the Garh site in 1903-04. He unearthed hoards of official Gupta seals which proved that Basārḥ was an ancient town and a provincial headquarters of the Gupta empire.<sup>4</sup>

After a decade D. B. Spooner of the Archaeological Survey undertook excavations<sup>5</sup> at the same Garh site in 1913-14 with a view (1) to trace the royal palace which should have been within the moated enclosure where Bloch had excavated, (2) to get some fresh clue for the identification of the site, (3) to get more antiquities, and lastly (4) to have more inscribed seals. Spooner's hopes were partially realized and he was convinced that the occupations of the Garh site extended from the Gupta to the Mauryan age.

The four seals<sup>6</sup> engraved with the name of the city of Vaiśālī found by Bloch and Spooner place the identity of the site with ancient Vaiśālī beyond dispute.

These earlier excavations gave an impetus to the authorities of the Vaiśālī Sangh to finance a further exploration at Vaiśālī which was undertaken by the Department of Archaeology on their request in 1950.

## C. SUMMARY OF RESULTS

The main aim of this excavation was (1) to determine the nature of the defences of the Garh

<sup>1</sup> A. S. Altekar : *The Stupa of the Lichchhavis*, The Hindustan Times (Delhi) of 11th May, 1958; *Indian Archaeology*, 1957-58, p. 11; *Journal of the Bihar Research Society*, Buddha Jayanti Special Issue, Vol. II.

<sup>2</sup> J. R. A. S. B., 1835, p. 128.

<sup>3</sup> Cunningham, *A. S. R.*, Vol. I, pp. 55 ff.

<sup>4</sup> *A. S. I., A. R.*, 1903-04, pp. 88 ff.

<sup>5</sup> *Ibid.*, 1913-14, pp. 98 ff.

<sup>6</sup> The four terracotta seals read :

(1) [V]aiśāly-adbhishbān-ādhikarāṇa

(2) [Vai]śālyām-araprakerti-[ku]ṭumbinā[m\*]

(3) [Vai]śāla-vishay-ā.

(4) *Vesālī-annasāyānaka-ṭakāre*



## INTRODUCTORY

site, (2) to get more evidence about the stratification of the site, and, lastly (3) to find out a clear sequence of the cultures of the Garh site with other sites in the vicinity.

With these aims the operations were conducted by one of the authors (K. Deva) as Superintendent, Department of Archaeology, Central Circle, Patna during February, 1950 with the assistance of the technical staff of the circle.

The excavations revealed two phases of the defences of the Garh site (below p. 14). The first phase is that of a mud-rampart measuring more than 65 feet wide and over 9 feet high which was followed by a sort of mud-brick structure in the second phase. From the associated finds the construction of the mud-rampart is assignable to Period Ib (c. 300 to 150 B. C.).

The evidence from all the habitation sites including Chak Rāmdās reveal occupational deposits, divisible into four Periods. Period Ia (c. 500-300 B. C.) is characterized by the Northern Black Polished (N. B. P.) Ware, black-and-red ware and red ware associated with bone-points and a few iron objects. Structures of this period seem to have been of perishable material like mud and bamboo. This period was encountered only on the site of Chak Rāmdās. Period Ib (c. 300-150 B.C.) which marks the earliest occupational phase in the Garh area and the latest at the Chak Rāmdās site, yielded N. B. P. Ware; grey ware of medium to coarse fabric; simple structures of square bricks; bone-points; iron objects; beads of semi-precious stones and opaque glass; and terracotta Nāga and other figurines, punched with circlets.

Period II (c. 150 B. C. to 100 A. D.) marked a phase of affluence and artistic activity on the site. Objects like steatite votive plaque with representations of the Mother Goddess, punch-marked and cast coins, ear-ornaments, bangles and beads of pottery and shell, copper antimony rods and miscellaneous objects of iron were found in this period. The survival of a stone celt of the Neolithic type is a noteworthy find from this phase. Well-planned single course structures of complete bricks are distinctive of this period, which has yielded the red ware along with a few N. B. P. Ware sherds.

Period III (c. 100 to 300 A. D.) is characterized by the red ware, beads of carnelian and pottery, and brick structures laid on a foundation of brick concrete.

Period IV (c. 300 to 500 A. D.) is characterized by structures of brick-bats, Gupta terracottas and sealings inscribed in the Gupta Brāhmī script. It can now be definitely asserted that the Gupta sealings found in such abundance by Bloch and Spooner came from the strata belonging to this period.

## D. ACKNOWLEDGEMENTS

The excavator is grateful to the Director General of Archaeology in India who gave permission to carry out this excavation, which was possible owing to the enlightened interest of the authorities of the Vaiśālī Sangh, led by Sri J. C. Mathur, its Founder-Secretary and guiding spirit. Thanks are due to the Vice-Chancellor, Patna University for sparing the services of Sri V. Mishra, then Research Assistant in the University, for assisting in the excavations and also to Dr. A. S. Altekar, Head of the Department of Ancient Indian History and Culture, Patna University and Dr. K. K. Datta, Head of the History Department, Patna College for deputing their post-graduate students to work in the excavation as site-supervisors. The willing assistance of Sri N. C. Burman Roy, Draftsman and Sri Nitendra Bose, Photographer of the Patna Circle also deserves grateful acknowledgement.



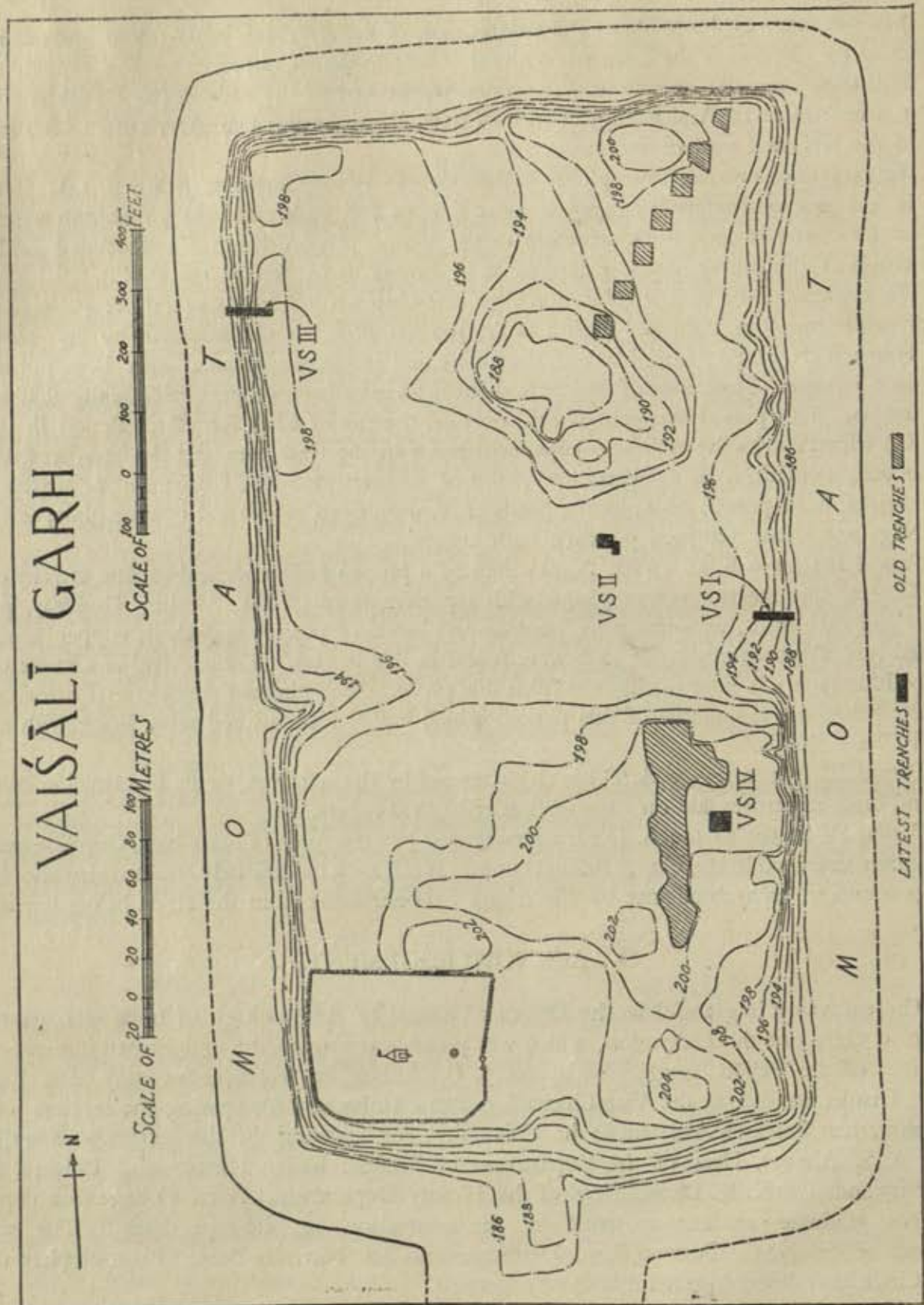


FIG. 1. Site plan



## II CHRONOLOGY

THE site of Rājā-Visāla-kā-Garh, (fig. 1) hereafter called the Garh area, is believed to represent the remains of the citadel or palace of Vaiśālī. It is a large brick-covered mound about a mile in circumference. At present the longer sides run from north to south for about 1700 feet and the shorter ones from east to west for about 800 feet, while the average height of the ruins is some eight feet above the surrounding fields. The maximum height of 20 feet is attained in the south-east corner. Originally the whole area was surrounded by a moat having a maximum width of about 125 feet, but now a major part of the moat is silted up and is under cultivation. The Garh is divided into two terraces, the southern terrace being slightly higher than the northern. Trenches VS I to VS III were laid in the lower terrace, while Trench VS IV was driven in the higher terrace in the south where Bloch and Spooner had excavated earlier and found boards of Gupta sealings.

Four trenches named VS I to IV were driven in the Garh area and only one trench was excavated at the low site of Chak Rāmdās which is situated about a mile west of the Garh and is referred to here as VSC. To determine the chronology of the Garh area, evidence from all the cuttings including VSC has been cross-checked and co-ordinated. Several datable objects like the Northern Black Polished (N. B. P.) Ware, coins, sealings and terracottas were found in the different cuttings. On the basis of these finds the chronology of the site has been classified as follows :

- Period Ia : c. 500-300 B. C.
- Period Ib : c. 300-150 B. C.
- Period II : c. 150 B. C. 100 A. D.
- Period III : c. 100-300 A. D.
- Period IV : c. 300-600 A. D.

The Garh area was deserted after the Late Gupta Period i.e. in c. 600 A. D., whereas the Chak Rāmdās site appears to have been deserted at the end of Period Ib in c. 150 B. C.

We shall discuss now the chronological evidence periodwise :

### *Period Ia (c. 500-300 B. C.)*

The most notable feature of this Period is the N. B. P. Ware and the associated black-and-red ware. At VSC the cultural layers with well-finished N. B. P. Ware and black-and-red ware continue below the water-level and these strata are more than 6 feet thick. The Ujjain excavation<sup>1</sup> has proved that the black-and-red ware is earlier than the N. B. P. Ware, whereas the Sonapur excavation<sup>2</sup> has shown that the black-and-red ware starts earlier but continues with the N. B. P. Ware. The co-occurrence of the black-and-red and N. B. P. Ware sherds at VSC suggests the earliest stage of the life of the N. B. P. Ware, the lower limit of which has been dated on the basis of the

<sup>1</sup> *Indian Archaeology*, 1956-57, pp. 20-28.

<sup>2</sup> *Ibid.*, pp. 19-20.



evidence from Kauśāmbī and Hastināpura excavations<sup>1</sup> to 6th century B. C. The lowest layers, hitherto exposed at VSC may, therefore, be safely dated from 500 to 300 B. C. The other associated finds at VSC are bone-points and iron objects like nail and knife which also occur in the equivalent layers at Ujjain, Hastināpura and Sonapur.

*Period Ib (c. 300 to 150 B. C.)*

In the upper layers of VSC black-and-red ware is practically absent, but the N. B. P. Ware and grey ware of medium to coarse fabric are found in fair quantity along with the more plentiful red ware, sometimes showing the use of taurine symbols. The earliest layers of VS I, II and III have yielded the same wares. Other characteristic finds of this period found on all the Vaiśālī sites are beads of pottery, agate and carnelian, bone-points, and terracotta Nāga and other figurines with punched circlets. Similar finds associated with the N. B. P. Ware have been found from other excavated sites like Ujjain, Sonapur, Rajgir and Pāṭaliputra.

As the N. B. P. Ware practically ceases after this period from the sites in the Garh area, this period is assignable to the later phase of this ware and may be dated to c. 300-150 B. C.

*Period II (c. 150 B. C. to 100 A. D.)*

This period was encountered only in the Garh area. In VS II were found the so-called Śuṅga terracottas from layers 6 and 7 assignable to this period. These Śuṅga terracottas are similar in style to those found from contemporary strata at other places such as Kauśāmbī<sup>2</sup> and Tamluk.<sup>3</sup> A few copper punch-marked and cast coins come from the upper layers of this period in VS I. It is well-known that these types of coins continued to be current till the early centuries of the Christian era. A votive disc of steatite carved with representations of the Mother Goddess, found in this period, is similar to a disc excavated from Taxila.<sup>4</sup> Toy carts and other terracotta figurines stamped with leaf and lozenge designs are similar to those found from contemporary layers at Hastināpura<sup>5</sup> and Kauśāmbī. The red ware along with few sherds of grey ware form the characteristic pottery of this period, while the N. B. P. Ware is scarce. The dishes of grey ware (Type 38h) are similar to contemporary dishes (fig. 22, Type 27) from Kumrahar.<sup>6</sup> The brick structures of this period, which resemble those of a like date from the Pāṭaliputra sites, are characterized by walls of single courses of complete bricks which are laid as headers for the plinth and stretchers for the superstructure. On the basis of the evidence discussed above, this period has been dated between c. 150 B. C. and 100 A. D.

*Period III (c. 100 to 300 A. D.)*

Brick structures of this Period are constructed on a foundation of brick concrete and resemble the contemporary structures from the Pāṭaliputra sites.<sup>7</sup> This Period is, therefore, assignable to c. 100 to 300 A. D.

<sup>1</sup> *Ancient India*, Nos. 10-11, pp. 50-52.

<sup>2</sup> *Indian Archaeology*, 1953-54, Pl. XI B.

<sup>3</sup> *Ibid.*, 1954-55, Pl. XXXIX.

<sup>4</sup> J. Marshall, *Taxila*, III, Pl. 147.

<sup>5</sup> *Ancient India*, Nos. 10-11, Pl. XLIII, 10.

<sup>6</sup> *Report on Kumrahar Excavations*, 1951-55, p. 62 ff.

<sup>7</sup> *Indian Archaeology*, 1955-56, p. 22, and *Report on Excavations at Kumrahar*, 1951-55, p. 48 ff.

## CHRONOLOGY

The red ware is characteristic of this Period which has yielded distinctive types of terracotta figurines and beads of carnelian, agate and pottery.

### *Period IV (c. 300-600 A. D.)*

Terracotta figurines, emulating the Gupta and the Late Gupta sculptural style including the Naigameśa types<sup>1</sup> and terracotta sealings with the legends written in the Brāhmī script, datable between fourth and sixth centuries, are the characteristic finds which assign this Period from c. 300 to 600 A. D. The pottery from this Period mainly comprises red ware and a few sherds decorated with *śrīvatsa* symbol. Similar decorated sherds come from other excavated sites of the same period.<sup>2</sup>

<sup>1</sup> *Ancient India*, No. 4, p. 134.

<sup>2</sup> *Ibid.*, No. 1, p. 52. Fig. 7, No. 7.



### III

#### THE CUTTINGS

##### A. CUTTING VSC (pls. III-IV; fig. 2)

**N**ORTHERN Black Polished Ware of good finish was reported to be found in abundance on the surface at Chak Rāmdās about a mile west of the Garh area. As it was known to be a low area, trial excavation of the site was expected to reveal the character of the earlier cultures of Vaiśālī. With this end in view a trench, 33 feet long and 10 feet wide, running north-south was excavated after making negotiations with the owner of the land.

No brick structures were found, but at a depth of about 5 feet from the ground level a concrete floor was exposed overlaid by a 10 inches thick burnt debris, constituting the remains of a mud-and-timber super-structure. Two circular ovens were found lower down sealed by layer 8 comprising compact greenish clay. This layer also yielded a dish of pinkish ware bearing irregularly painted thick bands in deep orange shade (below, p. 49). On the northern section of the trench was exposed the buried skull and skeleton of a hyaena (below, p. 67).

The N. B. P. Ware was exhumed here in abundance from humus to layer 10, encountered at 13 feet below surface. Due to water-logging further excavation was not possible, though the cultural deposits still continued.

The black-and-red ware was not found in the strata above layer 7, while grey ware was conspicuous by absence in the layers below 7. The N. B. P. and red wares, however, occur all along. The site has been, therefore, divided into two phases, viz. Ia and Ib, respectively below and above layer 7.

The notable finds associated with the earlier phase are bone-points and iron objects which continue in the next phase also. The second phase yielded a jasper weight, beads of agate, carnelian and topaz, shell bangles and terracotta Nāga figurines.

##### B. CUTTING VS I (pl. V; fig. 3)

In order to ascertain the nature of the moat and the high mound, a trench, 69 feet long and 10 feet wide, running east-west was laid on the eastern slope of the Garh mound.

A flimsy structure of nine courses of brickbats was exposed of the late period, but it was badly robbed. Stratigraphically, it is assignable to Period IV. This structure was sealed by layer 1 which consists of pitted stuff.

A small wall of seven courses, laid on a foundation of 5 inches thick concrete, was found just at a depth of about 6 inches from the foundation of the Period IV structure. This wall was sealed by a layer which was composed of grey earth with sherds and brickbats. As this wall, too, was badly robbed, nothing definite can be said about the plan of the structure. However, from the nature of the structure which is akin to contemporary buildings from Kumrahar (Pāṭaliputra) and the associated finds, this has been dated to Period III (c. 100 to 300 A. D.).



Vaišālī (VSC)

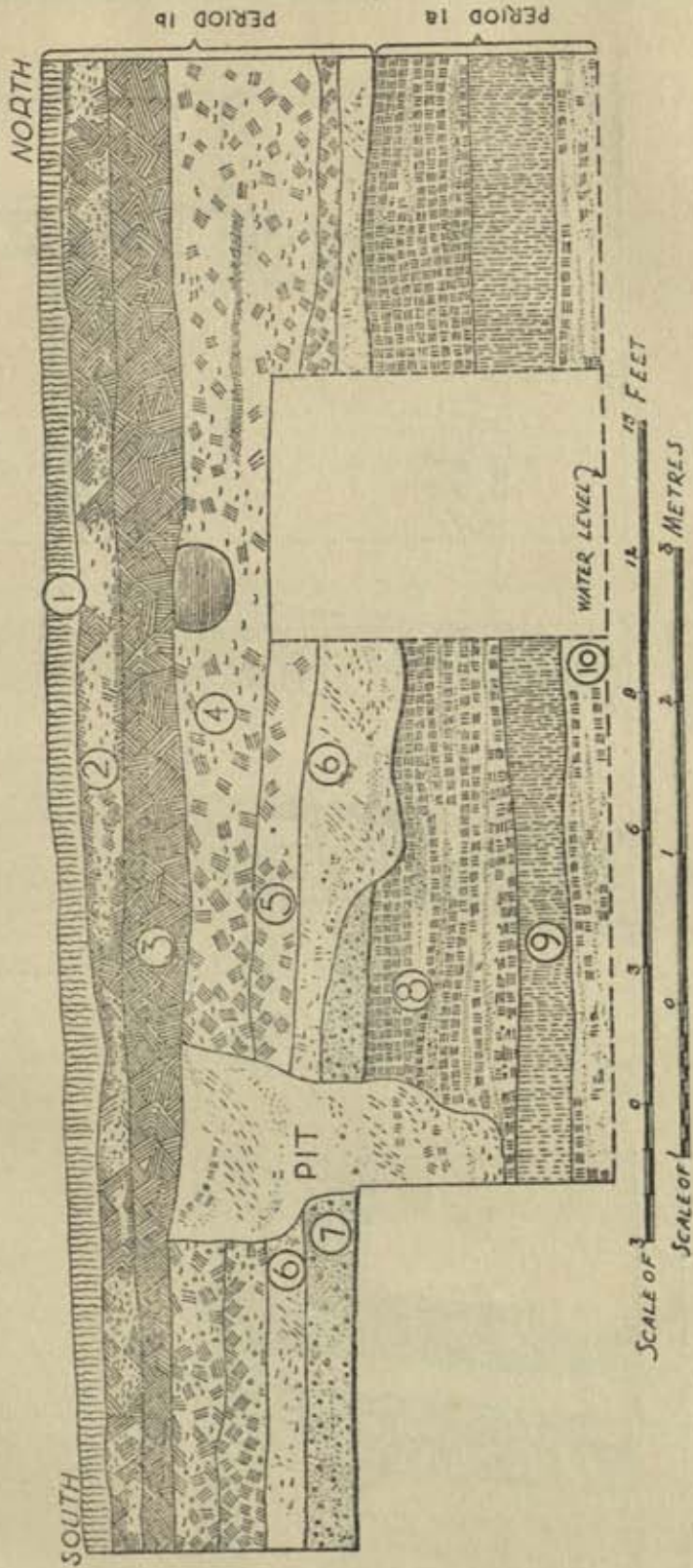
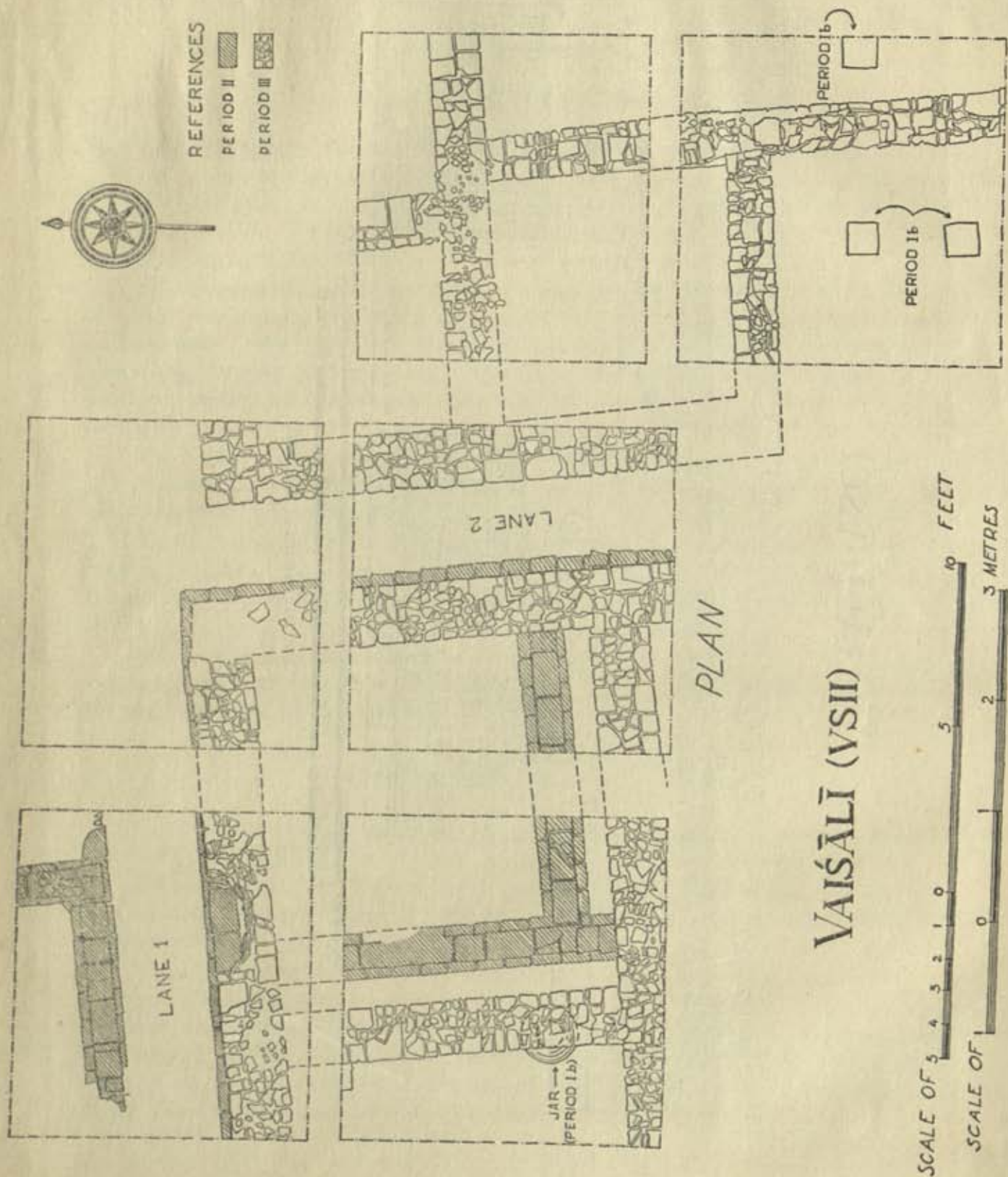


Fig. 2. Section of Site VSC.







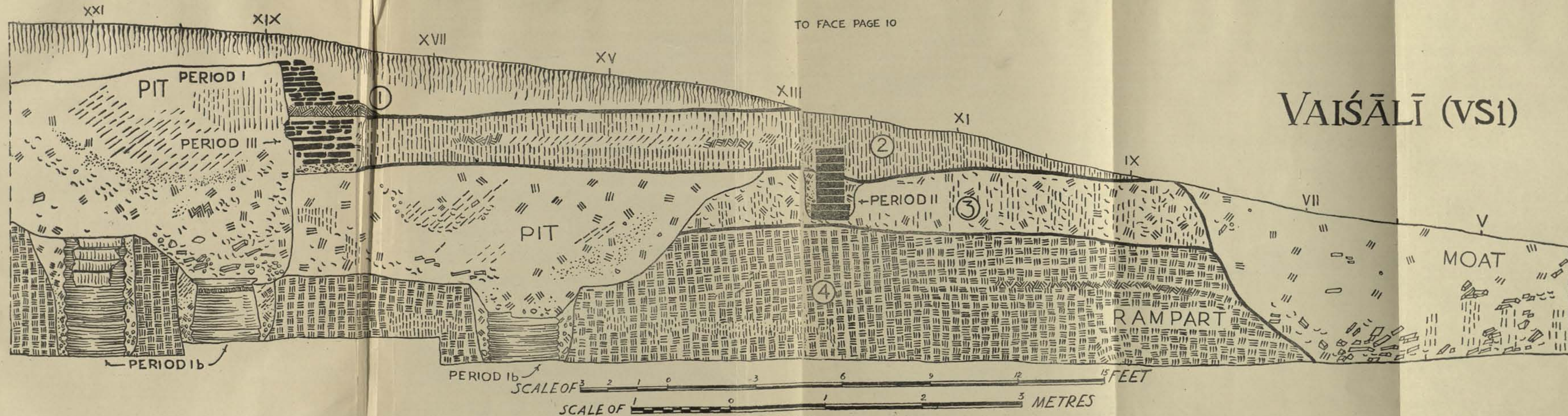


FIG. 3





Lower down, a wall of 9 courses, measuring 5 feet long, was found meeting at right angles another wall, measuring 19 feet long and forming remains of probably two rooms. This structure was made of a single file of complete brick courses. The foundation consisted of two courses laid as headers, while the super-structure consisted of seven surviving courses laid as stretchers. As the structure, stratigraphically referable to Period II, was not exposed beyond the trench, it is difficult to visualize the complete lay-out of the building. It may be pointed here that Pāṭaliputra excavations have also yielded structures of similar construction belonging to the same period i.e., c. 150 B. C. to 100 A. D.

No structures of Period Ib were found except three ring-wells or soak-pits. One of these is of more than nine courses sealed by pittish stuff. A second ring-well shows ornate top courses having large rings (ht. 16 inches) with tapering sides, decorated with a cable pattern at the shoulder. This ring-well is also sealed by pittish stuff. The third ring-well of more than seven rings is sealed by a pit which cuts into layers 3 and 4. These ring-wells could not be fully exposed due to water-logging.

At the base of the mound the layers are seen terminating in a slope indicating the outer boundary of the mud-rampart which, however, is more prominent in VS III (fig. 6). Amongst the notable finds unearthed from this site are cast and punch-marked copper coins and terracotta animal and human figurines including those of Nāgameśa type. The most important human figurine is a head of Period II showing exquisite modelling and coiffure (pl. XIVA). A terracotta sealing bearing the legend *Sreshṭhi-Nigamasya* i.e., 'of the guild of Bankers' in the Gupta script has also been unearthed from the site. It may be mentioned that sixteen similar sealings were found by Spooner in his excavations.<sup>1</sup> Shell bangles and beads of pottery and opaque glass are also found from this cutting.

### C. CUTTING VS II (pl. VI; figs. 4-5)

The site, situated on the lower terrace in the heart of the Garh mound, revealed structures of four periods.

Period Ib is represented by a large pottery jar and three out of probably four 12 inches square bricks, regularly disposed each at the three corners of a rectangle. The regular lay-out of the large-sized bricks indicates that they served some structural purpose. Square bricks such as these were also found in Spooner's excavations.<sup>2</sup> In Period Ib the structures seem to have been largely of perishable material like mud-and-timber and bricks were evidently not popular as building material.

Sherds of the distinctive N. B. P. Ware are found associated with the remains of Period Ib which marks the earliest occupation on the site. Below layer 8 occurred the natural soil which coincided with the subsoil water-level, encountered between 15 and 16 feet below surface in March, 1950. Besides pottery, the only noteworthy finds of Period Ib comprise an iron nail and a perforated bone-amulet (pl. XXI, no. 13).

To Period II belonged a large brick-built house with distinctive features. It is made of complete bricks of 18"×10"×2.5" to 3" size and shows an offset each at the foundation and the plinth

<sup>1</sup> *A. S. I., A. R.*, 1913-14, p. 122.

<sup>2</sup> *Ibid.*, p. 102.



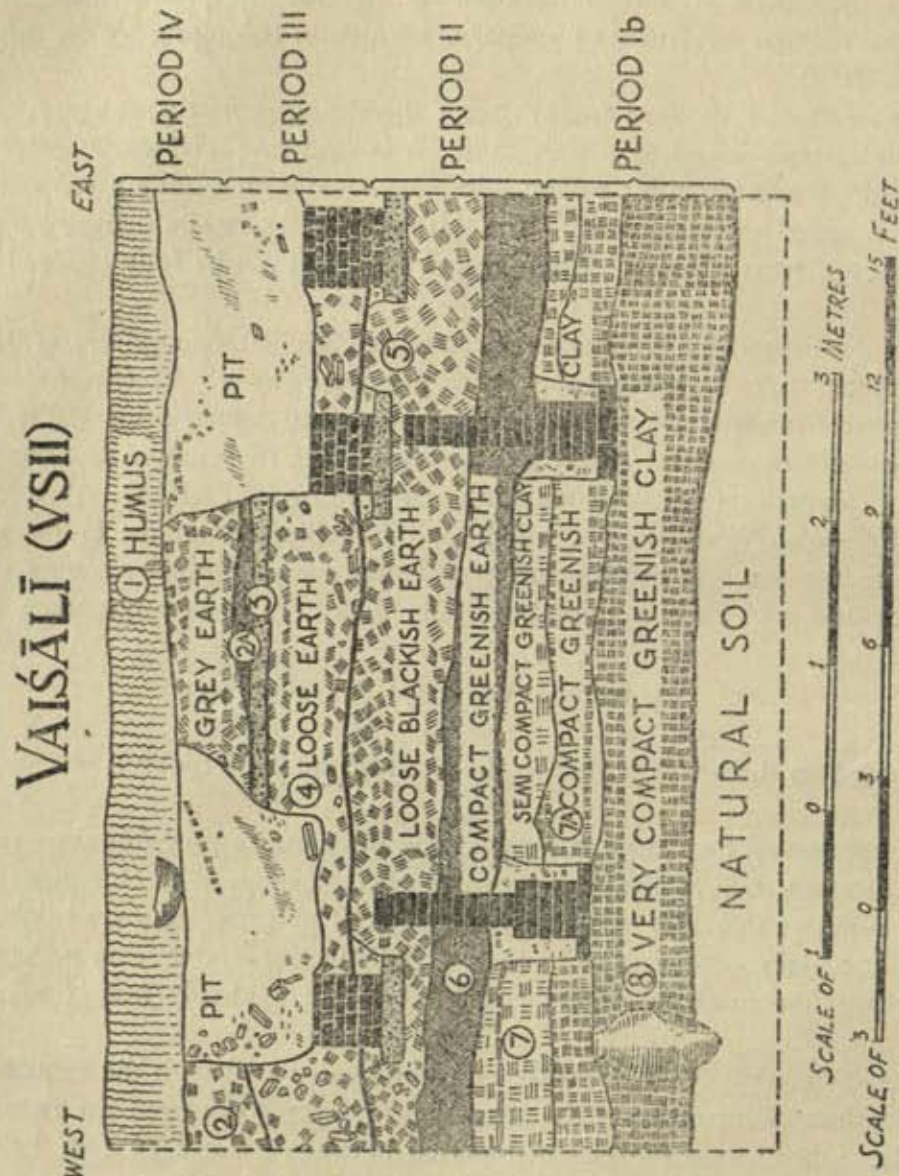


Fig. 5. Section of VS II



level, the foundation offset occurring at the first or second course from the bottom and the plinth offset five courses higher up. The foundation courses show the so-called English bond consisting of headers alternating with stretchers in each course. The entire wall of which 13 courses were preserved above the foundation offset is single course thick, the courses between the two offsets being laid as headers, and those pertaining to the super-structure laid as stretchers. The house is but partly exposed and shows a large hall in the north and portion of an adjoining hall in the south. The house was large enough to constitute an independent block with open spaces in the east and north, both used as lanes in the subsequent periods.

The floor-level of this house, sealed by layer 6, which is dirty semi-compact clay tending to be greenish, was roughly at 9 feet below surface, while its foundation overlying layer 8 lay at about 11 feet below surface. Layers 5 to 6 are contemporary with Period II, which marked a phase of affluence and artistic activity on the site, culturally far in advance of Period I. The cultural repertoire of Period II consisted of terracotta figurines of the Mother Goddess of fully modelled and partly modelled varieties, terracotta animal figures and toy carts stamped with leaf and lozenge designs, objects of steatite including a casket and a circular votive plaque (fig. 63) carved with representations of the Mother Goddess, pipal leaf, winged lion and other symbols, bone and ivory points, bangles and beads of pottery, copper antimony rods, and glass beads, the last showing a remarkable technological advance. A noteworthy survival in this period is a stone celt of the Neolithic type which was kept probably as an object of curiosity or sentimental value.

The subsequent structural phase, viz. Period III is represented by part plans of three houses each belonging to an independent block. Generally, the town plan of the preceding period was followed in Period III, as we find the same alignment for the largest house constituting the south-western block of Period III, as of the only exposed house of Period II. Further the open spaces in the north and east continued to be used as such in the form of lanes 1 and 2 in this period. The large house of Period III, which is but partly cleared, shows a corner hall of substantial size and part-plans of two adjoining chambers.

The eastern block, separated from the foregoing by lane 2, is even less completely exposed and shows portion of a house with three chambers in a row facing the lane. The north block, demarcated from other blocks by lane 1, is practically unexplored and nothing has been uncovered of it save the outlines of a chamber. The structures of Period III, unlike those of the preceding period, are made of brickbats. They are, however, thicker and more substantial than those of Period II and are invariably built on a broad foundation of rammed brickbats, 5 to 6 inches thick. The structures of Period IV are flimsy like those of site VS I.

#### D. CUTTING VS III (pl. VII; fig. 6)

On the western slope of the Garh mound a long trench was laid out running longitudinally east to west to find out whether the Garh is enclosed by any defences besides a moat which runs all round it. Earlier to our excavations, Cunningham in 1880-81 and Bloch in 1903-04 tried to trace the defences, but their explorations were fruitless. Spooner who excavated at the site in 1913-14 felt disappointed for not finding any evidence of 'masonry ramparts.' He, however, found a layer of 'very noticeably and singularly sandy soil' which according to him was 'thrown up in the



excavation of the encircling moat,' and from this he concluded that 'an earth embankment was all the circumvallation that the site possessed.'

Our excavation revealed that there was a rampart of mud measuring more than 65 ft. wide and over 9 ft. high. The western or outer face of the original mud-rampart was traced (pl. VII). This shows the outer face of the rampart with a noticeable batter.

The mud-rampart consists of different deposits which are called here layers 5 to 7. Layer 7 consists of sticky greenish clay with very few sherds. Layer 6 is a yellow sandy stratum which has yielded besides a fair quantity of the red ware, some sherds of the N. B. P. Ware, bone-points, a beautiful winged female terracotta figurine (pl. XIV B) and a terracotta Nāga figurine, referable to Period Ib (c. 300 to 150 B. C.). This layer seems to be what Spooner described as 'singularly sandy soil.' Over this deposit, compact mud with sherds was laid to strengthen the mud-rampart.

There appears to be a second phase of the mud-rampart when a sort of mud-brick structure of six to seven courses was put up to prevent erosion of the hump of the rampart. It may be recalled that mud-bricks were also used for the mud defences at Harappa.<sup>1</sup>

More definite results regarding the nature and stratification of the defences of the Vaisali Garh site have since been obtained in the excavation conducted in 1958-59 by Dr. A. S. Altekar and Sri Sitaram Roy. The published<sup>2</sup> summary of this excavation is reproduced below:—

"A trench, 135 ft. long and 21 ft. wide, at one of the highest points in the south-eastern corner of the fort revealed that the defences fell into three Periods.

In Period I the defence-wall was made of baked bricks, as evidenced by thick brick debris, and possibly belonged to the Sunga period, as it rested on a deposit with the Northern Black Polished Ware and wares associated with it. The debris suggested that the breadth of this wall had been about 20 ft. in thickness.

In Period II the defences consisted of a massive rampart, 68 ft. in width at the base, 21 ft. in width at the extant top and 13 ft. in extant height; it was made of earth, the digging of which left a moat around the fort. A sealing of Agnimitra found in one of the post-rampart layers, with characters of the 2nd century B. C., was a pointer to the date of the erection of the rampart.

In Period III, probably of the late Kushan and early Gupta age, a brick rampart, 9 ft. wide was constructed, with military barracks, some of them built of bricks measuring  $14\frac{1}{2}$  in.  $\times$   $9\frac{1}{2}$  in.  $\times$  2 in., at least in the south-eastern corner of the fort; spear- and arrow-heads and other iron implements unearthened from the area of the barracks proved that they had been used by soldiers. A few Kushan coins were found in this area. The open space between the barracks and the defence-wall, about 30 ft. wide, might have been used as a road."

Although the character of the brick-walls of 'Periods I and III' lacks definition and remains to be revealed by further digging, the results of the recent excavation are enlightening and substantially corroborate and materially supplement the evidence from our excavation.

#### E. CUTTING VS IV (pls. VIII-IX)

Near the earlier excavations of Spooner and Bloch two trenches, measuring 21 ft.  $\times$  15 ft.

<sup>1</sup> *Ancient India*, No. 3, p. 66.

<sup>2</sup> *Indian Archaeology*, 1958-59, p. 12.



# VAIŚĀLĪ (VS III)

## SECTION ACROSS THE DEFENCES

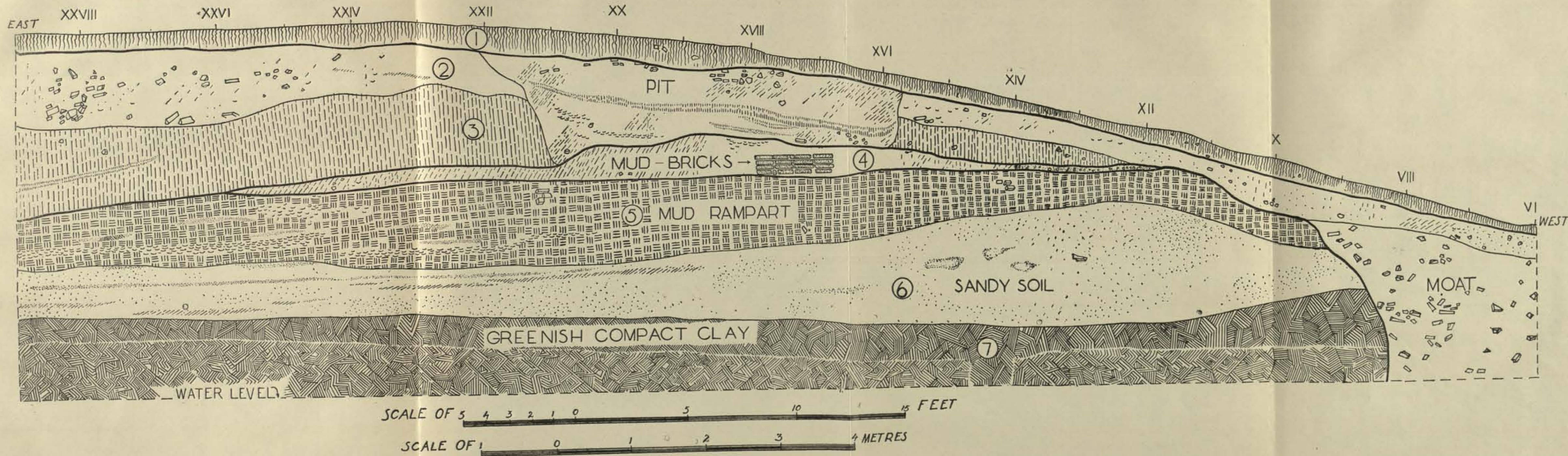


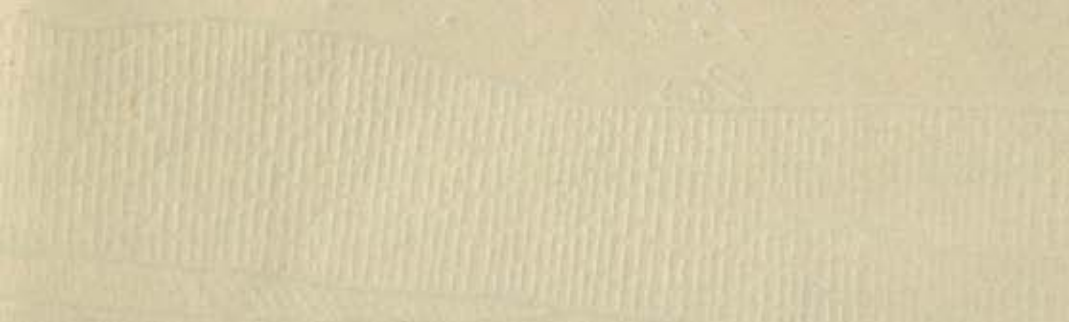
Fig. 6



VXX

IVXX

IIIXX



WATER LEVEL

1000

each, were laid on the upper terrace in the southern part of the Garh area.

The site was generally full of ash-pits in the upper layers, but yielded flimsy structures made of reused brickbats which were assignable to Period IV. The associated finds were iron objects like nail and knife, terracottas including the Naigameśa and crude Mother Goddess figurines, beads of pottery and glass and terracotta sealings with names of individuals written in the Gupta Brāhmī script. Fragments of dumpy large terracotta figures have also been found.

A Period III wall of four courses of brickbats was built above a dilapidated earlier wall. The finds of this period are not of much significance.

The available remains of a Period II wall of single course bricks are too fragmentary to yield any sensible plan. The associated finds of this period were terracotta animal figurines with punched circlets and copper antimony rod.

No structures of Period Ib were encountered except channel-like furnaces (pl. IX). They ran parallel and across each other and were found filled with burnt reddish sandy earth mixed with charcoal. As no slag or any other objects were found in or near the furnaces, their purpose could not be ascertained. Similar furnaces, however, have been unearthed at Ujjain where they are definitely known to have been used for the manufacture of beads.<sup>1</sup> The associated finds of this period were bone-points and iron nails.

<sup>1</sup> *Indian Archaeology*, 1957-58, p. 34, pl. XLII A.



#### IV

### THE POTTERY

#### A. INTRODUCTORY

THE pottery from Vaiśālī is essentially plain. Few painted wares with black bands have been found, and decorations, but for some simple incised and applied patterns, are not common.

A few red ware sherds bearing stamped designs of leaf and lozenge, *śrīvatsa*, *pūrṇaghaṭa* and solar discs have been found. The pottery is usually wheel-turned and produced either on fast or slow wheels. The main ceramic industry of Vaiśālī consists of red ware, a small percentage of which is fine and well-fired. Generally the pottery is of medium fabric. The red ware is treated often with red slip or wash. Mica dusting sometimes finished with a reddish or golden shade is not uncommon.

The Northern Black Polished Ware continues in profusion from the surface to the last explored layer at Chak Rāmdās (VSC), a deposit of about 14 feet. But at the Garh site (VS I to VS IV) we find just a few pieces of the N. B. P. Ware from Period Ib and fewer pieces from Period II, but none from Period III upwards. On the whole, the number of the N. B. P. Ware sherds from the Garh is small which proves that this ware was rather casual and not native to the Garh area, while at VSC this ware occurs in good quantity and is of fine metropolitan quality, with silvery, golden, black and steel-blue lustre. The normal published types of this ware occur here and are illustrated (fig. 7). A corrugated sherd and a few incomplete knob handles (pl. XB) and fragment of a standard goblet (pl. XA, 3) are the only unpublished types.

Associated with the N. B. P. Ware, a limited number of sherds of black-and-red ware with bright polished surface also occur from Period Ia at VSC. Black-and-red ware is not common in Bihar, but has been recently unearthed at Sonapur,<sup>1</sup> where this ware occurs along with the N. B. P. Ware and even earlier. It may also be mentioned that it has affinity with the black-and-red ware from other excavated sites, like Ujjain, Āhar etc. Three fragmentary dishes bearing deep orange or black paint on dark brown slip also deserve mention from Period Ia (pl. XI B).

#### B. CHARACTERISTICS OF THE POTTERY

##### (i) *Period Ia*

The pottery from this period is generally plain and devoid of decoration. The characteristic pottery of this period is the N. B. P. Ware with silvery, golden, black and steel-blue lustre, and a pinkish grey ware of fine fabric with a metallic finish which is akin to the N. B. P. Ware. The commonest type of the N. B. P. Ware is the dish and the most evolved type is the flanged bowl (fig. 7, VIII). Other associated wares are black-and-red ware with fine polish and red ware which continue to the lowest excavated layer. Unfortunately further exploration was not possible due to water-logging. Some red ware sherds are characterized by thin fabric.

<sup>1</sup> *Indian Archaeology*, 1956-57, p. 19.

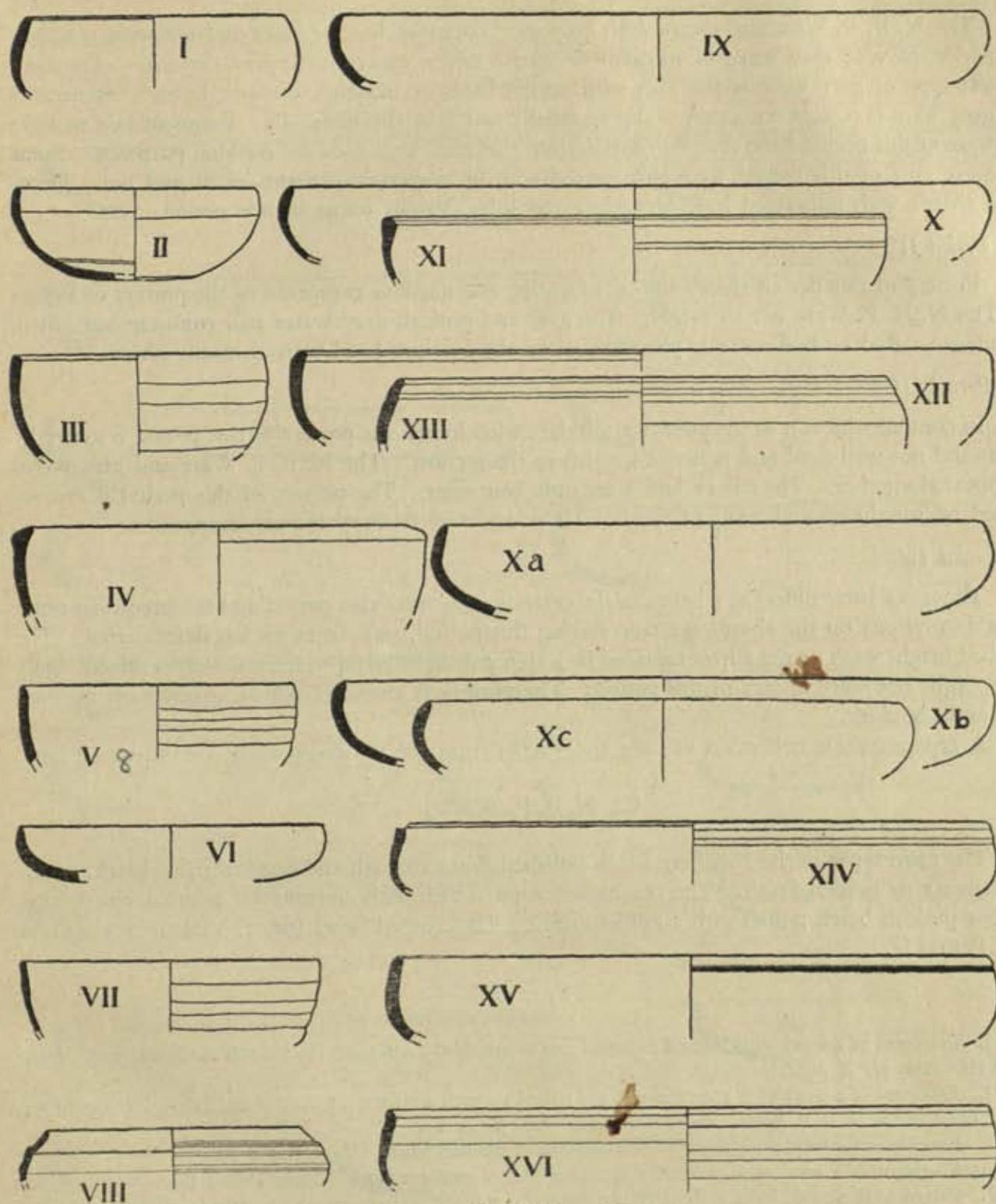


FIG. 7. N.B.P. Ware. Scale  $\frac{1}{2}$



(ii) *Period Ib*

The N. B. P. Ware and the pinkish grey ware continue, but the black-and-red ware is scarce. A new ware viz., grey ware of medium to coarse fabric makes its appearance now. The commonest type of grey ware is the dish with sagger base, of medium to coarse fabric. Sometimes the grey ware is treated with yellow slip externally and grey slip internally. Basins of buff or light red ware of this period have soot-stains indicating that they were used for cooking purposes. Some red ware pots of this period were also treated with black-painted red slip inside and out. Decorated sherds with impressed leaf, *pūrṇaghata* and solar designs occur in this period.

(iii) *Period II*

Pottery of this period shows decline in quality and finish as compared to the pottery of Period I. The N. B. P. Ware occurs rarely. The grey and pinkish grey wares still continue but not in abundance. Red or buff ware is plentiful, while the black-and-red ware is totally absent.

(iv) *Period III*

In contradistinction to the pottery from the earlier levels, the pottery of this period is generally coarse and not well-fired and is hence greyish in the section. The N. B. P. Ware and grey wares disappear altogether. The red or buff ware only continues. The pottery of this period is characterized by roughness and want of finish. There are very few typological changes.

(v) *Period IV*

There is a basic difference between the ceramic industry of this period and the preceding ones. More decorations on the sherds are seen during this period, but the fabric has deteriorated. The polished bright wash or red slip is replaced by a thin red slip which produces a weaker effect. Only red or light red ware occurs in this period. The pottery is characterized by grooves on the rim, neck and shoulder.

A representative collection of pots and sherds from the various periods are illustrated here.

## C. N. B. P. WARE

The main types in the Northern Black Polished Ware are dish and bowl with jet black, steel-blue, silvery or golden finish. The commonest type is dish with an incurved pointed rim having lustrous pinkish black polish with a golden finish. The flanged bowl (fig. 7, VIII) is a rare type from Period Ia.

FIG. 7

I. Fragment of a bowl with blunted incurved rim of fine fabric, antimony black finish inside and out. From Period Ib. Also pl. X A, 1.

II. Fragment of a bowl with a vertical rim and a flat base with a golden finish. Of fine fabric, it is one of the popular types of the N. B. P. Ware. From Period Ia. Also pl. X A, 4.

III. Fragment of a bowl with slightly thickened rim of medium fabric. From Period Ib.

IV. Fragment of a bowl with externally thickened rim of medium fabric. From Period Ib.

V. Fragment of a small bowl with vertically sharpened rim and grooves on the outer body of medium fabric. From Period Ib.

POTTERY : ASSOCIATED WITH N.B.P. WARE

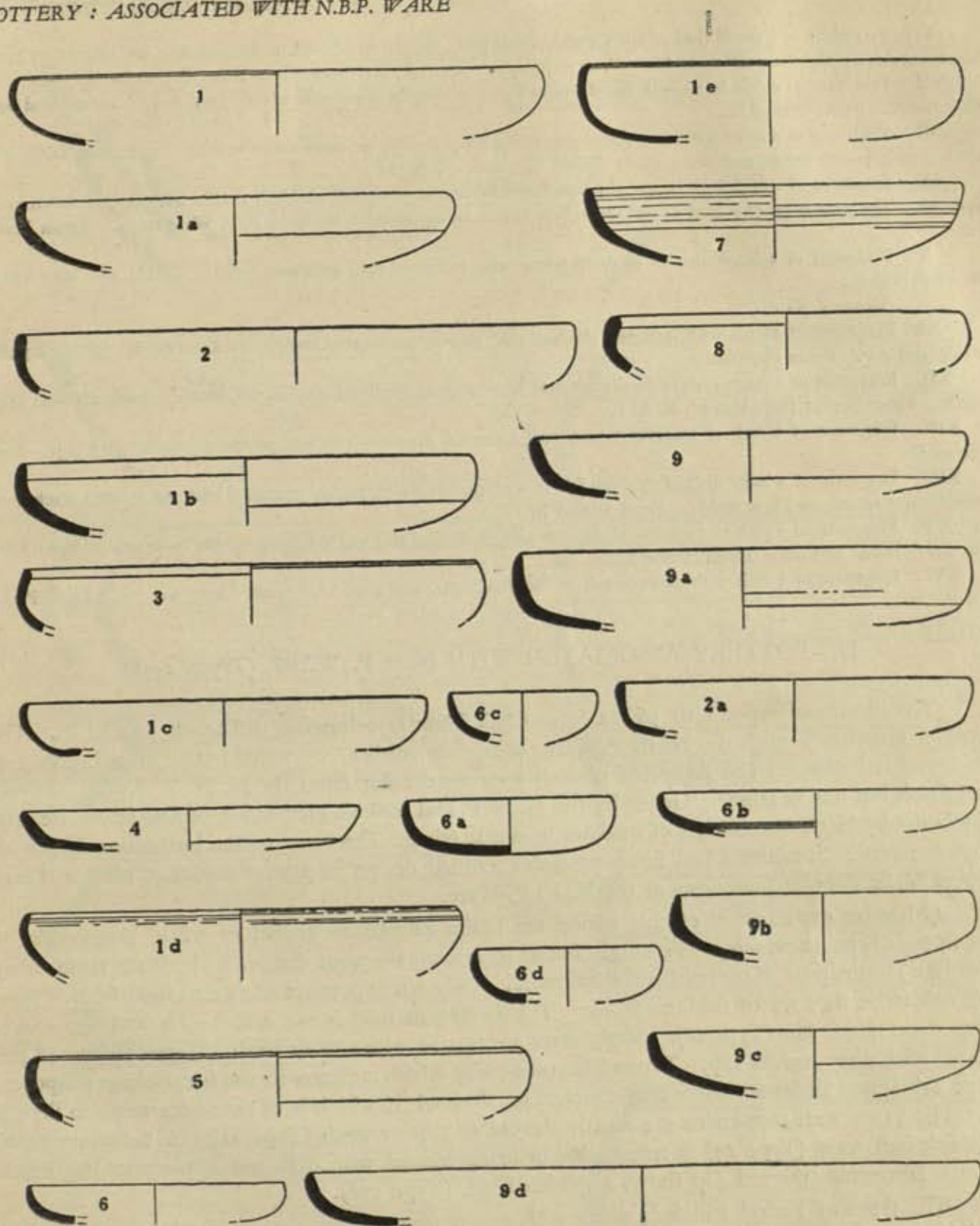


FIG. 8. Pottery Associated with N.B.P. Ware. Scale  $\frac{1}{2}$



VI. Fragment of a small shallow dish with vertical rim. It is greyish buff in the section, and has burnt partly black outside on the flat portion of base which is polished externally and internally. From Period Ia.

VII. Fragment of a thin bowl with flared rim and grooves on the body with silvery grey polish outside and steel-blue inside. From Period Ib.

VIII. Fragment of a bowl with corrugated side and a flange below the rim to receive a lid, of fine thin fabric with silvery grey polish inside and out. From Period Ia. Also pl. X A, 2.

IX. Fragment of a dish with incurved pointed rim having lustrous pinkish black polish with golden finish inside and out. The ware is greyish pink of fine well-burnt fabric, being common in the N. B. P. Ware strata. From Period Ia.

X. Fragment of a large dish of medium fabric with incurved rim, antimony colour outside and ashy inside. From Period Ia.

Variants Xa-c.

XI. Fragment of a dish with incurved clubbed rim, slightly corrugated body. Medium fabric, jet black polish inside and out. From Period Ib.

XII. Fragment of a large dish of medium fabric with slightly incurved rim, silvery finish outside and less shiny inside. From Period Ib. Also pl. X A, 5.

XIII. Fragment of a dish of medium fabric with incurved grooved rim and polished pinkish grey slip. From Period Ib.

XIV. Fragment of a large dish of medium fabric with grooved rim, highly polished with red spotted black finish outside and antimony black inside. From Period Ib.

XV. Fragment of a dish of medium fabric with almost vertical rim and a groove on the body and jet black lustrous finish inside and out. From Period Ib.

XVI. Fragment of a dish with concave side of medium fabric and steel blue finish inside and out. From Period Ib.

#### D. POTTERY ASSOCIATED WITH N. B. P. WARE (Types 1-36)

The illustrated types 1 to 36 are from Chak Rāmdās belonging to Periods Ia and Ib. The pottery associated with the N. B. P. Ware comprises dishes, vases and basins of red, grey and black-and-red wares. The dishes of pinkish grey ware differ from the N. B. P. Ware in colour and finish but not in fabric. Generally the N. B. P. and pinkish grey wares of fine fabric are outnumbered by black ware dishes of medium to coarse fabric. The firing or the burnishing is not of high standard. Sometimes bad firing produces mottled design in patchy shades of black. These appear to be popular imitations of the N. B. P. Ware.

Other important types of this period are basins of various shapes of which noteworthy is the lipped Type 12 which is commonly found in association with the N. B. P. Ware from other sites like Hastināpura, Kauśāmbī and Pātaliputra. Only a few pots are of fine or light fabric (Type 14), otherwise they are of medium fabric. The dusting of mica is not uncommon, and was sometimes done in patches (Type 28). Many vases are treated with slip or wash. Types 16 and 18 are treated with dirty creamy slip. Type 18 has soot-stains which indicates its use for cooking purposes. Type 21b shows ill-burnt coarse fabric turned on slow wheel which is of rare occurrence in Period Ia. The vases with soot-stains are mostly devoid of slip or wash (Type 22). A miniature bowl of thick buff ware (Type 27) is remarkable in being treated with dark red slip resembling black paint. Sometimes the red slip shows a golden finish (Type 27d).

The types of Period I include vases with decorations of cord design (Type 31d) or applied chain pattern with comb like incisions (Type 31g) or basket pattern (Type 31h). These vases are



POTTERY : ASSOCIATED WITH N.B.P. WARE

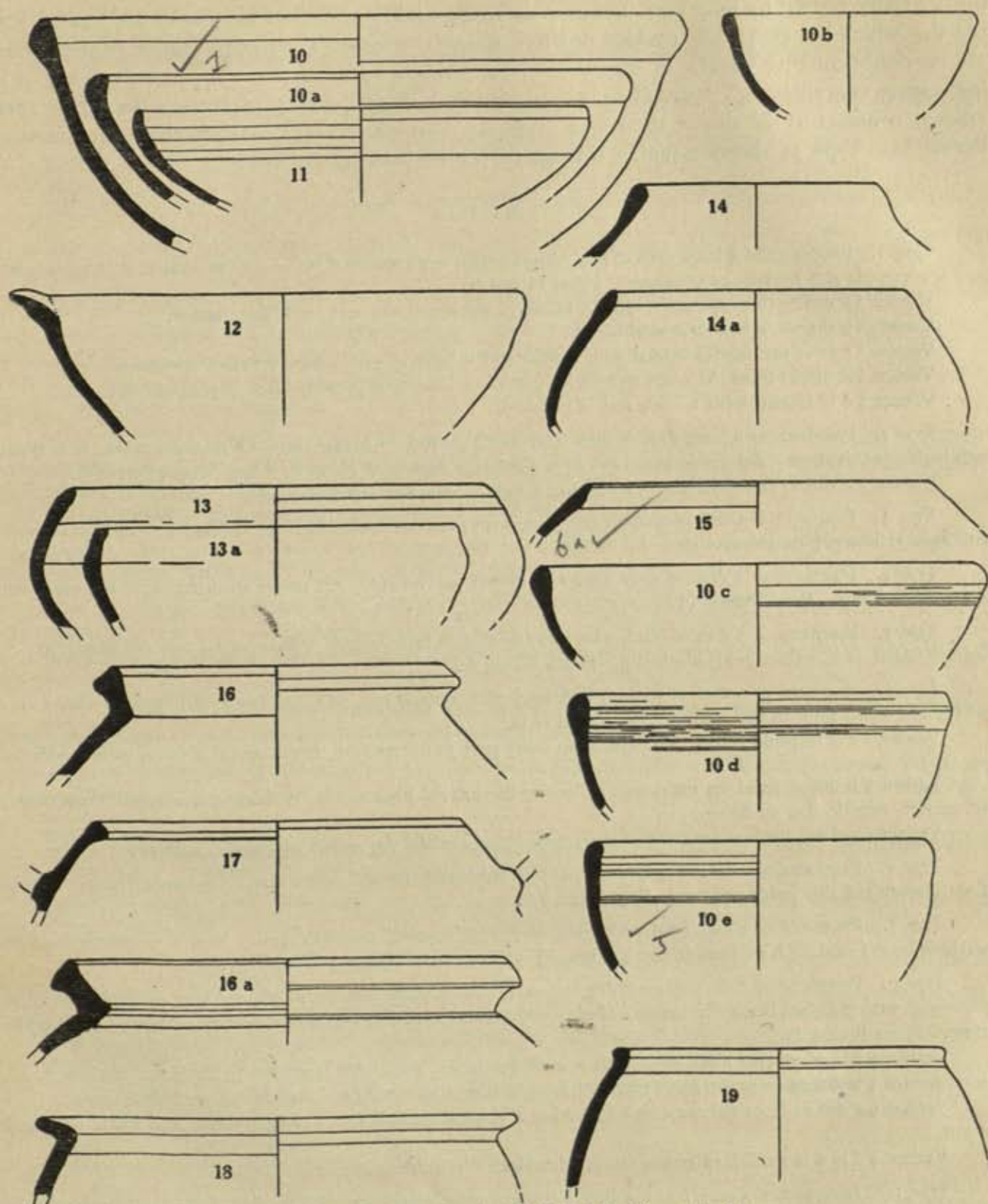


FIG. 9. Pottery Associated with N.B.P. Ware. Scale  $\frac{1}{4}$



further characterized by long neck and mica dusting. Light red or buff ware vases are treated with red slip which has frequently trickled down in irregular streaks (Type 31q). Some of these vases are no doubt cooking vessels, as they have a clear coating of soot-stains (Type 31t). There is an interesting vase showing a triangular chain pattern in relief (Type 33c). Generally the slip on these vases is confined to the rim or the neck. Type 34 is an interesting vase from the earliest level of Period Ia. Type 35 shows a highly corrugated profile both inside and out.

FIGS. 8-12

*Type 1.* Fragment of a large dish of pinkish grey ware with incurved rim. Of fine fabric, it is treated with grey wash inside and pinkish grey outside. From Period Ia.

Variant Ia differs from the main type in having a thickened rim and black slip outside.

Variant Ib differs in having coarse fabric.

Variant Ic is of fine fabric, treated with a wash and is painted with a band in black externally.

Variant Id differs from the main type in having a buff core and pinkish black slip inside and out.

Variant Ie is treated with a wash and is polished.

*Type 2.* Fragment of a large dish of grey ware with vertical thickened rim. Of medium fabric, it is treated with highly polished grey slip inside and out. It is a debased variety of N. B. P. Ware. From Period Ib.

Variant 2a differs from the above in having a light yellow slip inside and out.

*Type 3.* Fragment of a dish of pinkish grey ware with incurved thickened rim. Of medium fabric, it is treated with light yellow slip outside and grey slip inside. From Period Ib.

*Type 4.* Fragment of a dish of grey ware with flared blunted rim. Of coarse thick fabric, it is treated with polished black slip. From Period Ia.

*Type 5.* Fragment of a dish of black ware burning slightly pink outside with incurved side and pared rim. Of medium fabric, it is treated with black slip. From Period Ia.

*Type 6.* Fragment of a dish of pinkish buff ware with vertical rim. Of fine fabric, it is treated with a wash and burns greyish pink in the section. From Period Ia.

Variant 6a is of pinkish buff ware which has burnt grey in the section. It has traces of black paint inside and out.

Variant 6b differs from the main type in having fine incised lines inside. Polished pink-slipped surface inside and greyish outside due to firing.

Variant 6c-d are shallow cups rather than dishes of essentially the same shape as the main type.

*Type 7.* Fragment of a dish of light red ware with thickened rim and sagger base. Of coarse fabric, it is treated with bright red slip inside and out. From Period Ia.

*Type 8.* Fragment of a dish of deep brown ware with incurved thickened rim. Very few specimens of this ware have been found. Of medium fabric, it is treated with a wash. From Period Ib.

*Type 9.* Fragment of a dish of greyish pink ware with thickened side and blunted rim. Of medium fabric, it is treated with polished black slip inside and pink slip outside with obliques faintly painted in black on flat under-surface. From Period Ia.

Variant 9a is of greyish black ware with vertical featureless rim and is treated with black slip inside and out.

Variant 9b differs from the main type in having a sagger base with red slip outside and black inside.

Variant 9c differs from the main type in having a blunted vertical rim, a sagger base and black slip inside and out.

Variant 9d is a large dish of coarse fabric with black slip inside and out.

✓ ✓ *Type 10.* Fragment of a large basin of light red ware with clubbed rim. Of medium fabric, it is treated externally with red slip and internally with blackish red slip. From Period Ia.



## POTTERY : ASSOCIATED WITH N.B.P. WARE

Variant 10 a is of gritty greyish red ware, polished with red slip internally and perhaps used as a cooking vessel as indicated by soot-stains.

Variant 10 b differs from the main type in having grey core and is treated with dark-red slip in and out. From Period Ib.

Variant 10 c is treated internally with polished light red slip and externally with bright red slip. The inner portion is smoother than the outer.

Variant 10 d differs in having micaceous light red ware and is treated internally and externally with black-painted red slip.

5 ✓ Variant 10 e shows buff ware with bright red slip inside. It has gritty micaceous surface inside below rim.

Type 11. Fragment of a basin of greyish ware with vertical rim. Of medium fabric, which has burnt grey in the section, it is treated with pinkish black slip. From Period Ia.

Type 12. Fragment of a lipped basin of gritty red ware, treated internally and externally with bright red slip.

Type 13. Fragment of a basin of light red ware with incurved featureless rim. Of medium fabric, it is treated internally with polished pinkish slip and externally with red slip. From Period Ia.

Variant 13 a differs in having incurved blunted rim. Of medium fabric, it is treated internally and externally with bright red slip. From Period Ib.

Type 14. Fragment of a vase of light red ware with tapering sides and clubbed rim. Of fine light fabric, which has burnt grey in the section, it is treated with rich slip burning dark red with black patches outside and golden black inside. From Period Ia.

Variant 14 a is of buff ware, micaceous internally and externally.

6 ✓ Type 15. Fragment of a rimless vase of grey ware. Of medium fabric, it is treated with black slip internally on the neck. From Period Ia.

Type 16. Fragment of a vase of buff ware with thick out-turned rim and a concave neck. Of medium fabric, it is treated both internally and externally with dirty creamy slip. From Period Ib.

Variant 16 a is of light red ware and is treated externally with red slip, which continues internally up to shoulder.

Type 17. Fragment of a vase of buff ware with clubbed rim and a broken handle. Of medium micaceous fabric, it is treated externally with red slip and has soot-stains. From Period Ib.

Type 18. Fragment of a vase of greyish red ware with beaked rim. Of medium fabric, it is treated with creamy slip and is blackened internally and externally with soot-stains, indicating its use as a cooking vessel. From Period Ia.

Type 19. Fragment of a basin of buff gritty micaceous ware with vertical blunted rim. Of medium fabric, it is treated with a wash. It is rough internally and soot-stained externally. From Period Ib.

Type 20. Fragment of a bowl of light red ware with everted collared rim. Of medium fabric, which has burnt greyish buff in the section, it is treated both internally and externally with red slip. From Period Ia.

Type 21. Bowl of red ware with incurved thickened rim. Of medium fabric, it is treated with bright red slip inside. The red slip has flown on the outer surface and formed irregular registers. From Period Ia.

Variant 21 a is of greyish pink ware, treated externally with pinkish grey slip and internally with grey slip.

Variant 21 b is of black ware with vertical featureless rim. Of coarse ill-burnt fabric, it is turned on slow wheel and is treated with black slip inside and out.

Variant 21 c is of buff ware with blunted rim. Of medium gritty fabric showing mica dusting, it is devoid of any slip or wash.

Variant 21 d shows a flat rim.

Variant 21 e is of greyish red ware with soot-stains.

Variant 21 f differs from the main type in having grooved rim and is devoid of any slip or wash.

Variant 21 g is of black ware with black slip inside and out.



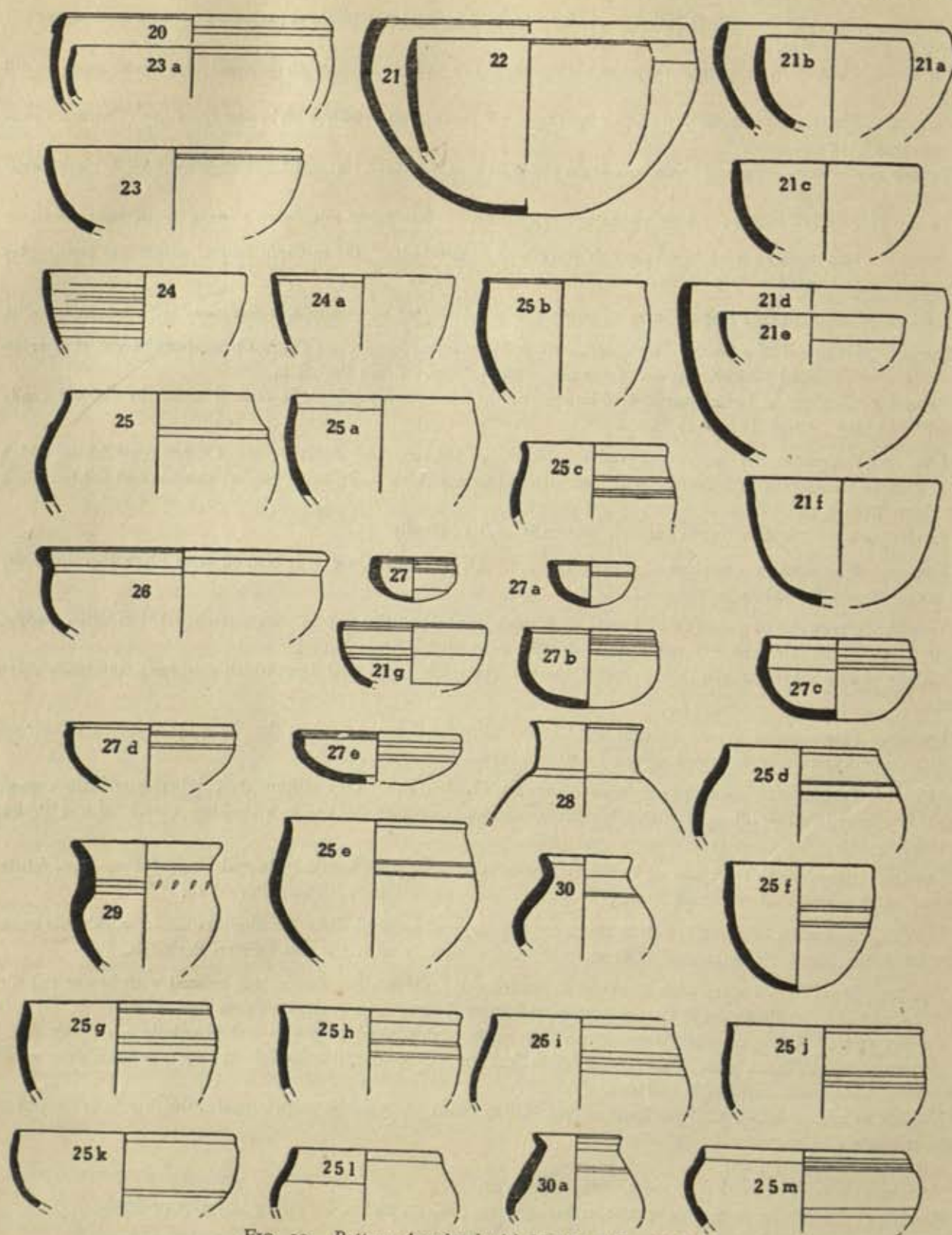


FIG. 10. Pottery Associated with N.B.P. Ware. Scale  $\frac{1}{4}$



## POTTERY : ASSOCIATED WITH N.B.P. WARE

*Type 22.* Fragment of a bowl of coarse buff ware with slightly convex side. Of medium gritty fabric, it is devoid of any slip or wash but has soot-stains outside. From Period Ia.

*Type 23.* Fragment of a bowl of grey ware with a groove below rim. Of medium fabric, it is treated both externally and internally with black slip. From Period Ia.

Variant 23 a differs from the above in having a beaded rim.

*Type 24.* Bowl of deep pink ware with slightly convex side. Of fine fabric, it is treated with pinkish slip inside and with irregular daubs of thick black slip outside. From Period Ib.

Variant 24 a is of grey ware with black slip inside and out.

*Type 25.* Fragment of a flanged bowl of grey ware with a profile which is convex below the flange and concave above it. Of fine fabric, it is treated with black slip inside and out. From Period Ia.

Variants 25 a and 25 b are of finely polished buff ware without flange.

Variant 25 c is treated both internally and externally with pinkish golden slip showing air bubbles.

Variant 25 d is of greyish pink ware of fine well-burnt fabric. It is treated with pinkish slip inside and out.

Variant 25 e is of grey ware with black slip and grooves on the shoulder.

Variant 25 f is a deep bowl of black-and-red ware with corrugated side and blunted rim. Due to inverted firing it is black inside and red-spotted black outside.

Variant 25 g is of grey ware with black-slipped interior.

Variant 25 h differs from the above in having a slightly flared mouth and shows black slip externally as well as internally.

Variant 25 i is a polished greyish black-slipped ware with a light polish outside.

Variant 25 j is a highly polished black-and-red ware.

Variant 25 k is devoid of any corrugations and is treated with black slip inside and out.

Variant 25 l is of greyish buff ware with bulbous body. Of coarse fabric, it is treated with polished black slip inside and out.

Variant 25 m has a ledge at the neck and is treated with black slip inside and out.

*Type 26.* Fragment of a bowl of buff ware having a clubbed rim with a well-formed neck. Of medium fabric, it is treated with red slip inside. From Period Ia.

*Type 27.* Miniature bowl of thick ware with corrugated rim and a grooved neck. Of medium fabric, it is treated both internally and externally with dark red slip looking like black paint. From Period Ia.

Variant 27 a differs from the above in being a red ware of fine fabric with a uniform thickness even at the base.

Variant 27 b is of light red ware with deeper corrugation below the neck. Of medium fabric, it is treated with a wash inside.

Variant 27 c is of greyish buff ware with a concave profile above neck and is devoid of any slip or wash.

Variant 27 d is of buff ware with an undercut rim. It is treated externally with golden red slip and internally with red slip.

Variant 27 e differs from the main type in being of light red ware, treated with black-painted red slip inside and out. From Period Ib.

*Type 28.* Fragment of a vase of light red ware with flared rim. Of fine well-burnt fabric showing mica dusting in patches, it is devoid of any slip or wash. From Period Ia.

*Type 29.* Miniature vase of red ware with flared rim, and incised nicks on the shoulder. Of medium fabric, it is treated externally with light red slip and internally with dark red slip. From Period Ib.

*Type 30.* Miniature vase of red ware with flared rim, narrow neck and bulbous body. Of medium fabric, it is treated with red slip inside and out with soot-stains outside. From Period Ib.

Variant 30 a is of buff ware with polished red slip inside and out.

*Type 31.* Fragment of a vase of buff ware with prominently flared rim and high neck. Of medium fabric, it is treated externally with light red wash and is rough and micaceous internally below neck. From Period Ib.



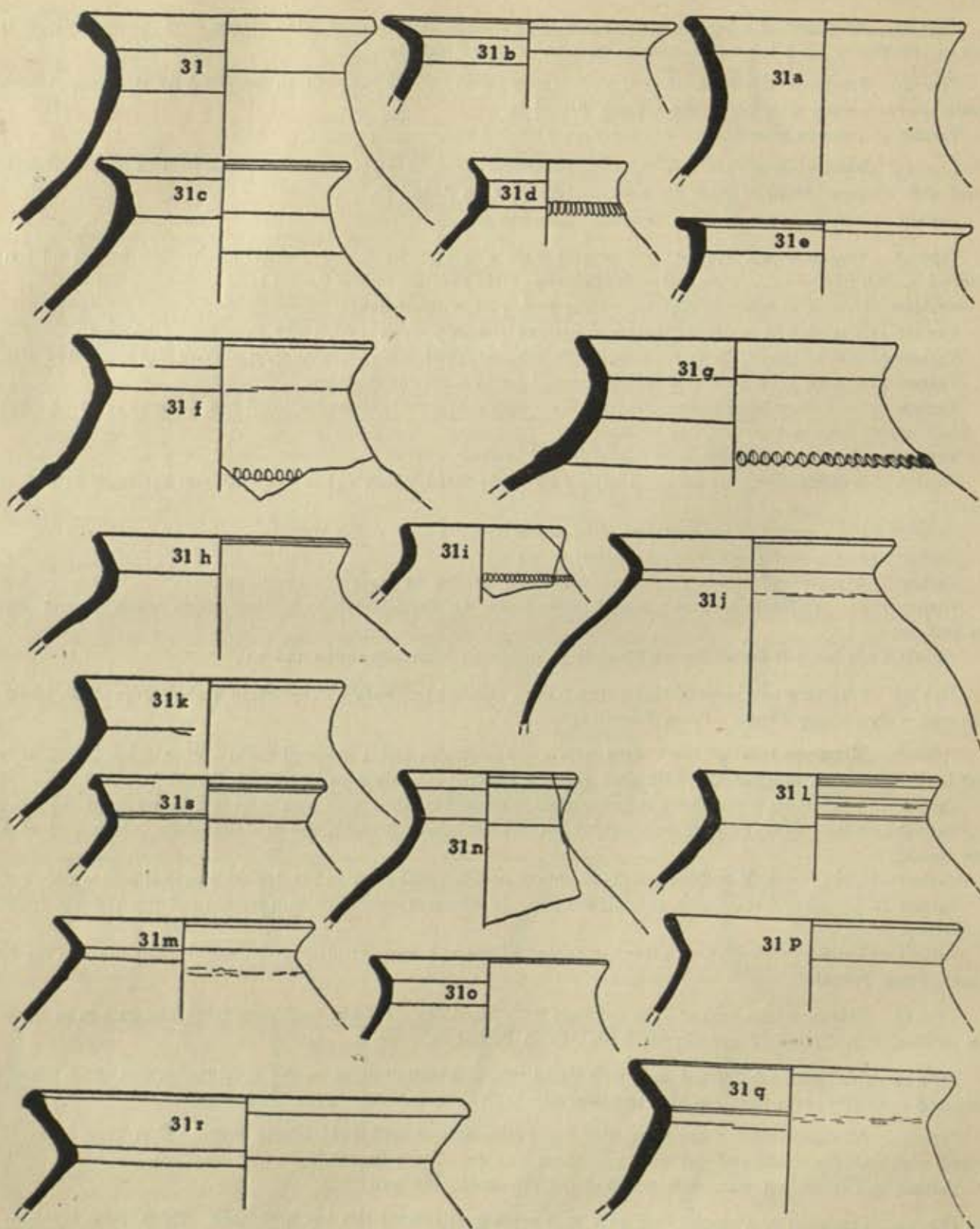


FIG. 11. Pottery Associated with N.B.P. Ware. Scale  $\frac{1}{4}$

POTTERY : ASSOCIATED WITH N.B.P. WARE

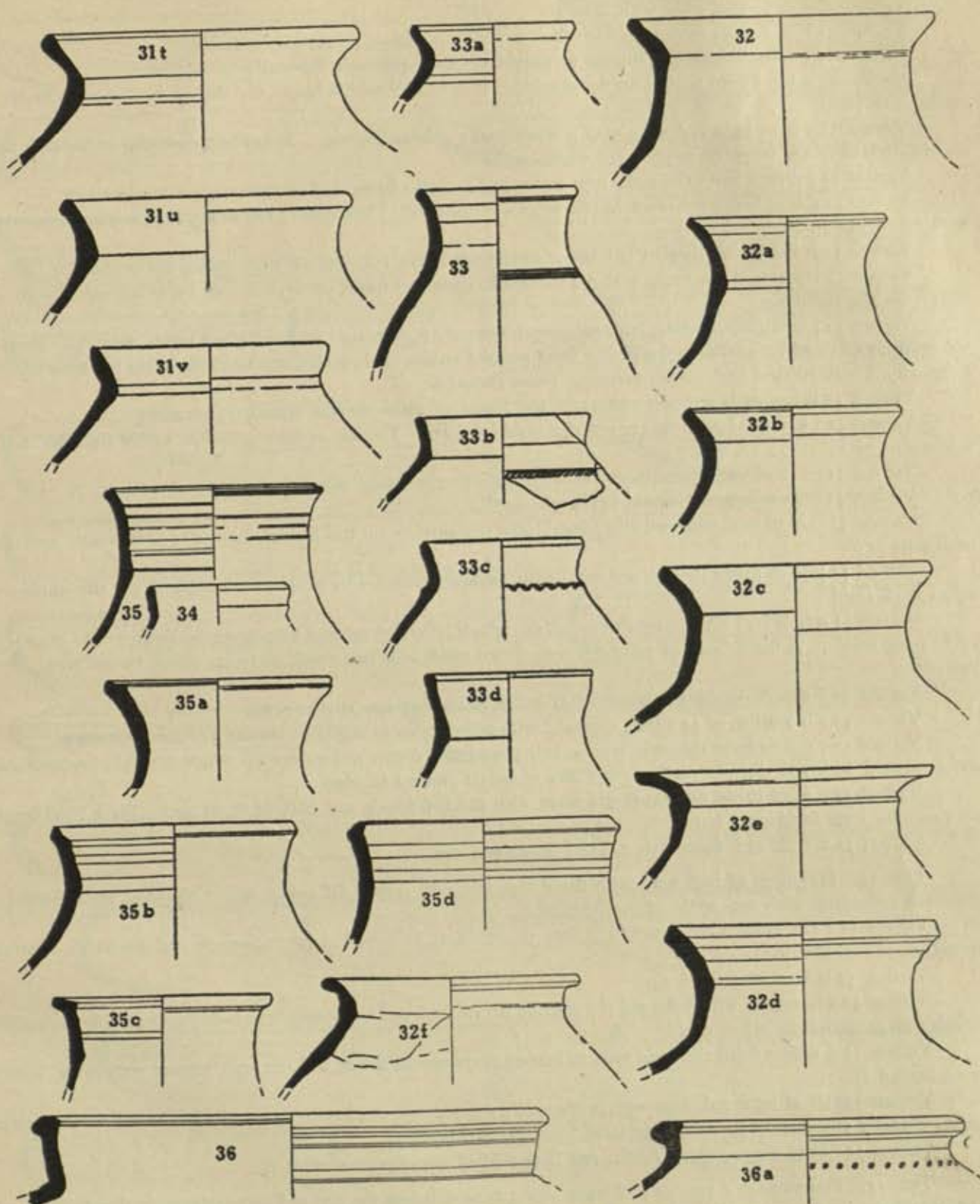


FIG. 12. Pottery Associated with N.B.P. Ware. Scale  $\frac{1}{4}$



Variant 31 a is treated only with a wash.

Variant 31 b is treated internally with dark red slip, which is preserved in patches.

Variant 31 c has blackish red slip up to shoulder which continues internally up to neck.

Variant 31 d has a cord design on the shoulder. It is treated with a bright red slip up to shoulder outside and up to neck inside.

Variant 31 e is of light red ware with a horizontally splayed out rim. It has burnt greyish in the core and is treated externally and internally with a red wash.

Variant 31 f differs from the main type in having a coarse fabric with decoration on the shoulder.

Variant 31 g is of buff ware which has burnt grey in the core. The shoulder has an applied chain pattern finished with comb like incisions.

Variant 31 h has basket pattern below the shoulder and has two incised lines inside below the rim.

Variant 31 i is treated externally with red slip which continues inside up to neck only. It is decorated with cord design on the shoulder.

Variant 31 j is of coarse fabric, burning grey in section. It is treated with indistinct bands painted in chocolate red on rim and shoulder outside and a clearer band painted on the inner neck from which the paint has trickled down. Externally it is impressed with basket pattern. From Period Ia.

Variant 31 k has dark red slip externally and traces of black tar-like substance internally.

Variant 31 l is treated with bright red slip inside and out. The slip is darker outside below shoulder and inside up to neck.

Variant 31 m is of buff micaceous ware with basket impressions outside.

Variant 31 n is roughened inside below the neck.

Variant 31 o is treated with red slip outside which continues on rim inside. Internally it is rough and shows mica dusting.

Variant 31 p is of gritty greyish red ware with thickened rim. It is treated with blackish red slip outside and up to neck inside.

Variant 31 q is of buff ware treated with red slip which is further painted with black irregular streaks outside and up to neck inside. A black band of paint has over-flown inside. It has rough incisions inside below neck. From Period Ia.

Variant 31 r shows out-turned beaded rim and is devoid of any slip or wash.

Variant 31 s is similar to 31 r but is treated with red slip up to shoulder outside and has soot-stains.

Variant 31 t differs from the main type in being internally coarse and micaceous below neck. It has soot-stains and is treated with red slip externally with traces of bands painted in black.

Variant 31 u is of gritty micaceous red ware with red slip inside and outside up to neck. Black band painted on rim only both inside and out.

Variant 31 v is of red ware with red slip inside and out.

*Type 32.* Fragment of buff ware with flared rim and long neck. Of coarse fabric, showing mica dusting, it is treated externally with red wash. From Period Ia.

Variant 32 a differs from the above in having grooved rim. It is treated externally with red slip which continues up to rim. From Period Ia.

Variant 32 b has out-turned rim.

Variant 32 c is treated with light red slip outside below neck and impressed with basket-pattern below shoulder. Rough micaceous inside below neck.

Variant 32 d differs from the main type in having corrugations inside and out and burning grey in the section. From Period Ib.

Variant 32 e is of light red ware with horizontally splayed out rim having externally bright red slip, which extends internally up to shoulder with occasional black painted bands.

Variant 32 f is of coarse, gritty fabric, and is devoid of any slip or wash.

*Type 33.* Fragment of a vase of buff ware with a groove below the rim and corrugations on the shoulder. Of medium micaceous fabric, it is treated with a wash, and is roughly potted internally below neck. From Period Ib.



POTTERY : DISHES & BOWLS

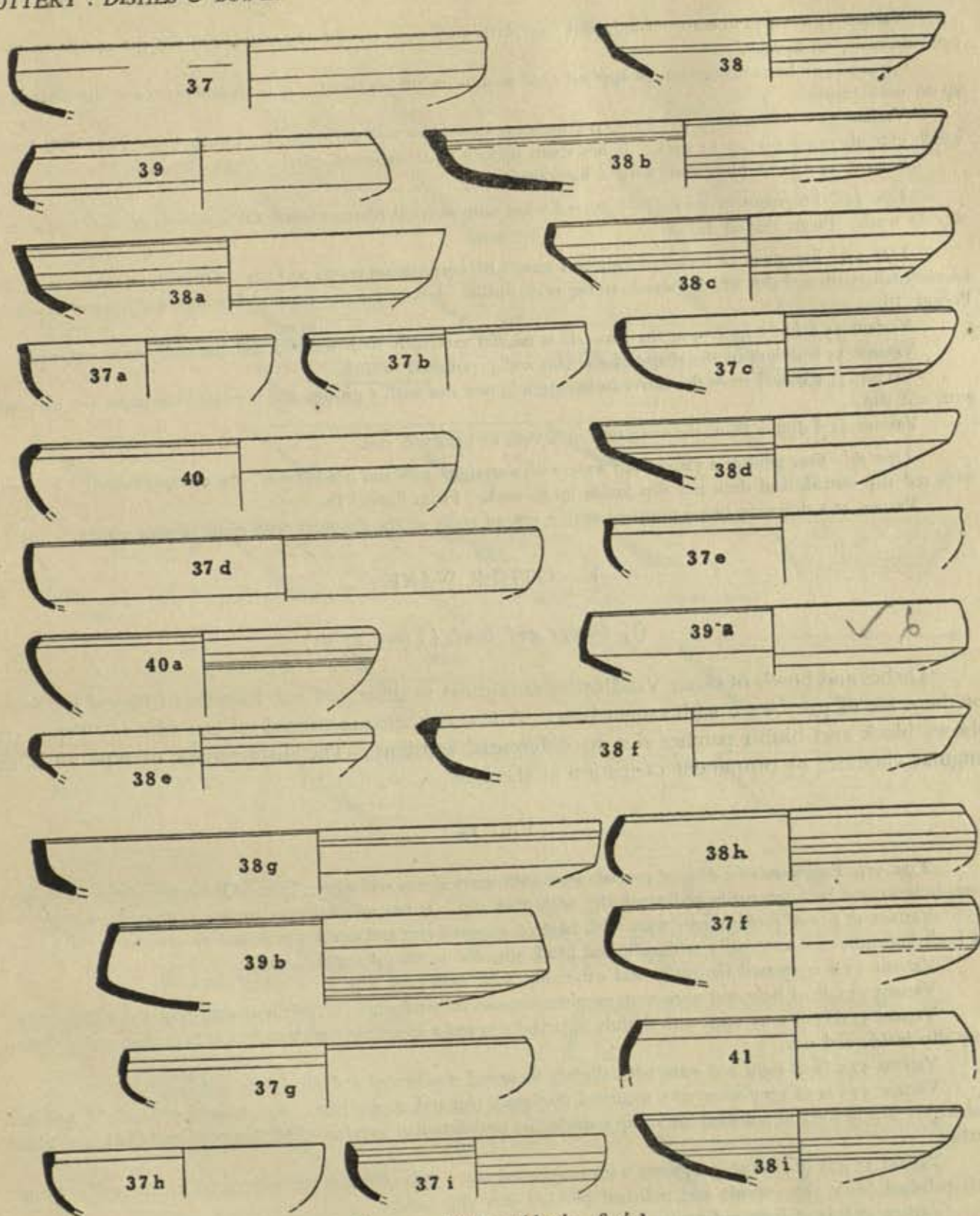


FIG. 13. Dishes and bowls. Scale  $\frac{1}{4}$



Variant 33 a differs in being of light red ware with grey core, treated externally with red slip except on the lip and internally up to neck.

Variant 33 b has a decoration of applied cord design on the shoulder. It is treated with red slip outside and up to neck inside.

Variant 33 c differs from the main type in being devoid of corrugations. It is treated externally with red slip which extends internally up to neck. It has chain pattern of triangles in relief. From Period Ib.

Variant 33 d is of buff ware with a long neck.

*Type 34.* Fragment of a vase of light red ware with vertical blunted rim. Of medium fabric, it is devoid of slip or wash. From Period Ia.

*Type 35.* Fragment of a vase of light red ware with corrugation inside and out. Of medium fabric, it is treated externally with red slip which extends to the neck inside. Lower interior portion is rough and micaceous. From Period Ib.

Variant 35 a has a groove at the rim. It is treated externally with red slip and internally with red wash.

Variant 35 b differs in the shape of the rim and is polished outside.

Variant 35 c differs from the above in having a lipped rim with a groove and is treated internally and externally with red slip.

Variant 35 d differs from the main type in having an incurved rim.

*Type 36.* Fragment of a vase of red ware with a straight neck and beaded rim. Of medium fabric, it is treated with red slip outside and dark red slip inside up to neck. From Period Ib.

Variant 36 a differs in being punched with a row of nicks on the shoulder with some tubular object.

## E. OTHER WARES

### (i) *Dishes and Bowls (Types 37-41)*

Dishes and bowls of other Vaiśālī sites are similar to those of Chak Rāmdās of Period I. Some of them are of grey ware with sagger base. A few of them are turned on fast wheel. Type 37f shows black and bluish patches due to differential burning. The characteristic of type 38 is an angular shoulder or prominent carination at the base.

FIG. 13

*Type 37.* Fragment of a dish of greyish ware with vertical rim and sagger base. Of medium fabric with grey core, it is treated both internally and externally with pink slip. It has mottled grey surface. From Period Ib.

Variant 37 a is of pinkish grey ware with blunted grooved rim and mottled pink and grey surface. It is treated both internally and externally with polished black slip and is turned on fast wheel.

Variant 37 b is treated internally and externally with dark grey slip.

Variant 37 c is of light red ware with greyish core and collared rim. It is treated with bright red slip outside.

Variant 37 d is of grey ware with slightly incurved rim and a groove at the shoulder. It is treated with polished grey slip inside and out.

Variant 37 e is of light red ware with slightly incurved rim having red slip inside and out.

Variant 37 f is of grey ware with incurved thickened rim and sagger base. It is treated with highly polished bluish grey slip inside and polished black slip outside due to differential burning which has produced black and bluish patches.

Variant 37 g is of pinkish grey ware with roughened rim. It is of fine fabric with metallic finish and is treated with polished black slip outside and polished pinkish grey slip inside.

Variant 37 h is of light red ware with thickened flat rim. It is internally treated with red slip.



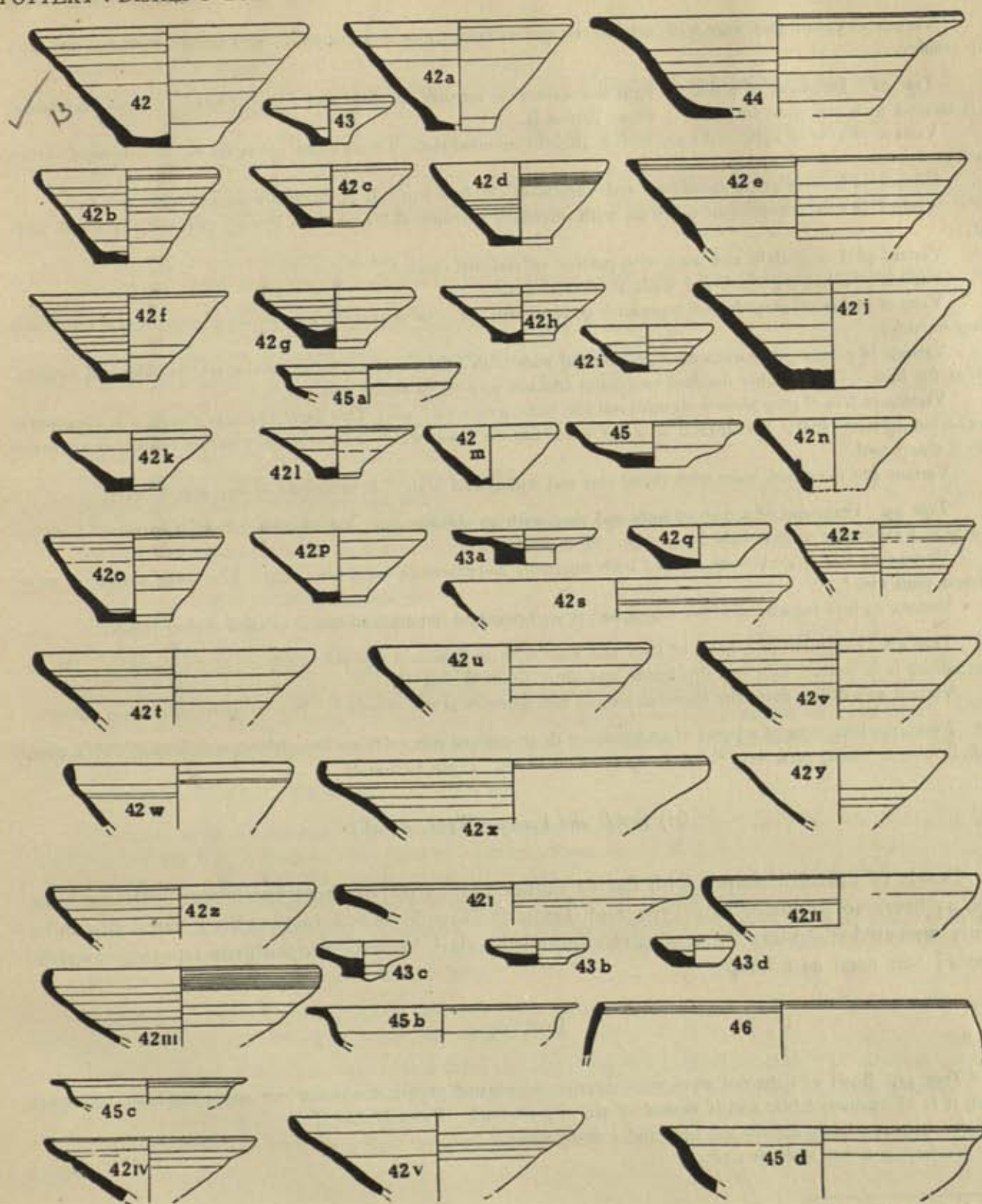


FIG. 14. *Bowls and Lamps. Scale  $\frac{1}{4}$*



Variant 37 i is of grey ware with vertical rim and externally grooved shoulder. It is treated with polished grey slip inside.

Type 38. Fragment of a dish of light red ware with angular shoulder and a sagger base. Of medium fabric, it is treated with red wash internally. From Period II.

Variant 38 a is of light red ware with a slightly bevelled rim. Of medium gritty fabric, it is treated with a wash and is soot-stained inside.

Variant 38 b is of gritty micaceous red ware with clubbed rim. It is internally treated with red slip.

Variant 38 c is a well-burnt red ware with internally corrugated body. It is treated with red slip inside and out.

Variant 38 d is of light red ware with patches of red slip inside.

Variant 38 e has a greyish red wash inside and out.

Variant 38 f is of greyish buff ware with clubbed rim. It is of coarse micaceous fabric smoothened inside and gritty outside.

Variant 38 g is of gritty micaceous greyish red ware with a flat rim, external groove at the shoulder and a carination at the base. It is roughly finished externally and has soot-stains inside and out.

Variant 38 h is of grey ware with incurved rim and corrugated body. This variety is very common at Pāṭaliputra sites including Kumrahar. It is turned on a fast wheel but the lower striations above the external carination are pared with a sharp tool.

Variant 38 i is of buff ware with flared rim and corrugated body. It is devoid of any slip or wash.

Type 39. Fragment of a dish of light red ware with an oblique rim. Of medium fabric, it is treated both internally and externally with polished red slip. From Period Ib.

✓ Variant 39 a is of grey ware, treated both internally and externally with black slip. The outer surface is more polished than inner.

Variant 39 b is turned on a fast wheel and is well-polished outside and has a mottled surface inside.

Type 40. Fragment of a bowl of light red ware with an incurved rim and a groove at the shoulder. Of medium fabric, it is treated with red slip inside and out. From Period II.

Variant 40 a differs from the above in having two grooves at the shoulder. It is of gritty micaceous fabric.

Type 41. Fragment of a bowl of grey ware with an oblique rim. Of medium fabric, it is treated with a wash. Parallel oblique bands, now very faint, are painted in black. From Period II.

## (ii) *Bowls and Lamps (Types 42-46)*

Bowls of different shapes with flat or sagger bases from different levels are illustrated here. Type 45 bears some analogy to Type 2 of Taxila (Sirkap).<sup>1</sup> It is a bowl with a flared rim and a bluntly carinated shoulder. Type 46 is of a remarkable dark brown ware with rim tapering inwards. Type 43 was used as a lamp.

FIG. 14

✓ Type 42. Bowl of light red ware with tapering corrugated profile, thickened rim and a flat base. Roughly potted, it is of medium fabric and is devoid of any slip or wash. From Period II.

Variant 42 a has a narrow flat base and a sharp rim.

Variant 42 b has a sharper rim.

<sup>1</sup> *Ancient India*, No. 4, p. 50.



## POTTERY : BOWLS & LAMPS

Variant 42 c differs from the above in having a featureless rim. It is treated with a wash.

Variant 42 d is better potted with a convex profile.

Variant 42 e is a well-burnt bowl with clubbed rim. It is treated with red slip inside and out.

Variant 42 f has prominently thin profile.

Variant 42 g is of buff ware with a thick flat base. Of coarse fabric, it is treated with a wash.

Variant 42 h has a flared mouth.

Variant 42 i has obliquely cut rim. Of coarse fabric showing sand dusting, it is treated with a wash.

Variant 42 j has thick tapering sides. Of coarse gritty fabric, it is treated with red wash externally and is roughly potted with an unfinished base.

Variant 42 k has prominent thread marks on the base.

Variant 42 l differs from the main type in having a concave profile and a ring base. It is treated with a wash.

From Period IV.

Variant 42 m is of light red ware with a thin base. From Period IV.

Variant 42 n is a simple bowl with a thickened rim. From Period II.

Variant 42 o has a corrugated profile and is treated with a wash.

Variant 42 p has a sharpened rim and thin profile.

Variant 42 q has a vertically pared rim and a thick flat base.

Variant 42 r has very thin corrugated profile.

Variant 42 s is of brick-red ware with beaded rim.

Variant 42 t is a roughly potted buff ware.

Variant 42 u has a thick blunted rim with slightly corrugated profile.

Variant 42 v differs from the main type in having a flared profile. From Period III.

Variant 42 w has a slightly incurved rim.

Variant 42 x has an incurved vertical rim.

Variant 42 y has thin flared sides and is devoid of any slip or wash.

Variant 42 z resembles 42 w but shows coarse fabric, with mica dusting and is devoid of any slip or wash.

Variant 42 i has a beaded rim. Of gritty coarse micaceous fabric, it is treated externally with red slip.

Variant 42 ii is treated with a wash and shows a clubbed rim. From Period III.

Variant 42 iii has ridges on the shoulder and shows an incurved rim. It is turned on a fast wheel.

Variant 42 iv is roughly potted on a slow wheel and had a sagger base. It is devoid of any wash or slip. From Period III.

Variant 42 v is of buff ware with a thick flared rim.

*Type 43.* Lamp of brick red ware with inturned rim and a depression on the inner base. Of well-burnt fabric, it is devoid of any slip or wash and has signs of burning. From Period II.

Variant 43 a has a thick flat base with featureless rim.

Variant 43 b differs from the above in having less thicker wall and flat base.

Variant 43 c is a miniature lamp of light red ware with lipped rim and very thick irregular base. Of medium fabric, it is treated with a wash. The lip has become blackened by burning. From Period III.

Variant 43 d is a roughly potted dumpy lamp.

*Type 44.* Fragment of a bowl of buff red ware with a flared rim, corrugated profile and flat base. Of medium fabric, it is devoid of any slip or wash. From Period IV.

*Type 45.* Bowl of light red ware with a flared rim and a bluntly carinated shoulder. Of medium fabric, it is devoid of any slip or wash. From Period II. This type bears some analogy to Type 2 of Taxila (Sirkap)<sup>1</sup>

Variant 45 a has a greater carination.

Variant 45 b has a horizontally splayed out rim. It is treated externally with red slip which continues up to neck inside.

<sup>1</sup> *Ancient India*, No. 4, p. 50.



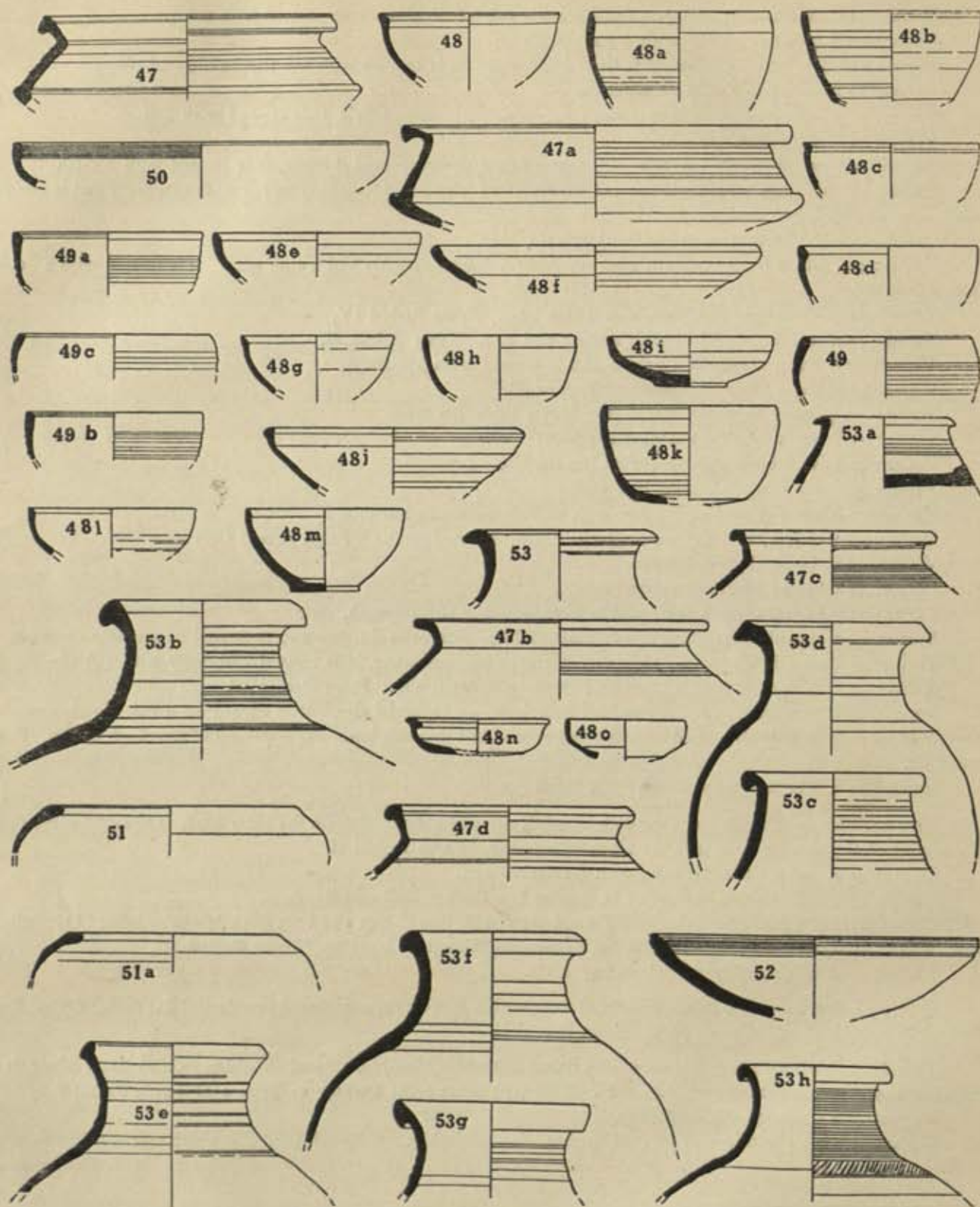


FIG. 15. Miscellaneous Types. Scale  $\frac{1}{4}$



## POTTERY : MISCELLANEOUS WARES

Variant 45 c is of grey ware with black slip inside and out.

Variant 45 d is deeper and thicker. It is of buff ware with light red slip inside which continues up to rim outside.

Type 46. Fragment of a bowl of dark brown ware with rim tapering inwards. Of medium fabric, it is treated with dark brown slip inside and out. From Period Ib.

### (iii) Miscellaneous Wares (Types 47-59)

Type 48a is a bowl which is treated with polished grey slip inside and pinkish grey slip in registers outside, which is probably due to differential firing. It may be a survival of black-and-red ware. Bowls of grey ware having prominent corrugations on the body are treated with black slip and are well-fired (Type 49). Sometimes bowls are also treated with lustrous black slip which shows an affinity with the N.B.P. Ware (Type 48 h). Type 50 is treated both inside and out with chocolate slip. Type 52 is a very interesting frying pan. It is roughened below rim inside and has a layer of sand outside presumably for frying purposes, as indicated by soot-stains.

Vases from Vaiśālī are interesting inasmuch as they are generally used for cooking purposes. Sometimes they have a band on the shoulder of punched designs (Type 53 n) or of incised scallops (Type 53 m). The vases of Period IV are characterized by grooves on the rim (Type 53 ii). The slip on some vases, often trickles down in the interior (Type 56 a). Type 57 is a roughly potted cylindrical vase of buff ware of an interesting shape. Type 58 has affinity with Hastināpura Type XXXI<sup>1</sup> and occurs with its variants at sites like Ahichchhatrā, Kauśāmbī and Taxilā.

### FIGS. 15-17

Type 47. Fragment of a vase of buff ware with internally grooved out-turned rim, slipped neck and prominently carinated base. Of coarse fabric, it is devoid of any slip or wash and was probably used as a cooking vessel. From Period IV.

Variant 47 a has a splayed out beaded rim. Of medium fabric, it is treated externally with red slip up to carination, which continues internally up to rim. Rough and soot-stained below carination. Two blotches of red paint on shoulder outside.

Variant 47 b differs from the above in having a simple rim. It has soot-stains inside and out.

Variant 47 c has a well-formed neck and a clubbed rim. It is of red gritty ware.

Variant 47 d is of light red ware with a nail-head rim.

Type 48. Fragment of a bowl of red ware with an out-turned oblique rim. Of medium fabric, it is treated both internally and externally with greyish red wash. From Period II.

Variant 48 a is of slightly dull pinkish grey ware with incurved thickened rim. It is treated with polished grey slip inside and pinkish and dark grey slip in registers outside produced by differential firing. From Period Ib. It is probably a variety of black-and-red ware.

Variant 48 b has a featureless rim with shallow corrugations inside and out. It is treated internally with polished black slip and externally with grey slip.

Variant 48 c is a well-burnt bowl with externally grooved rim. It is treated both internally and externally with red slip.

<sup>1</sup> *Ancient India*, Nos. 10-11, p. 60.



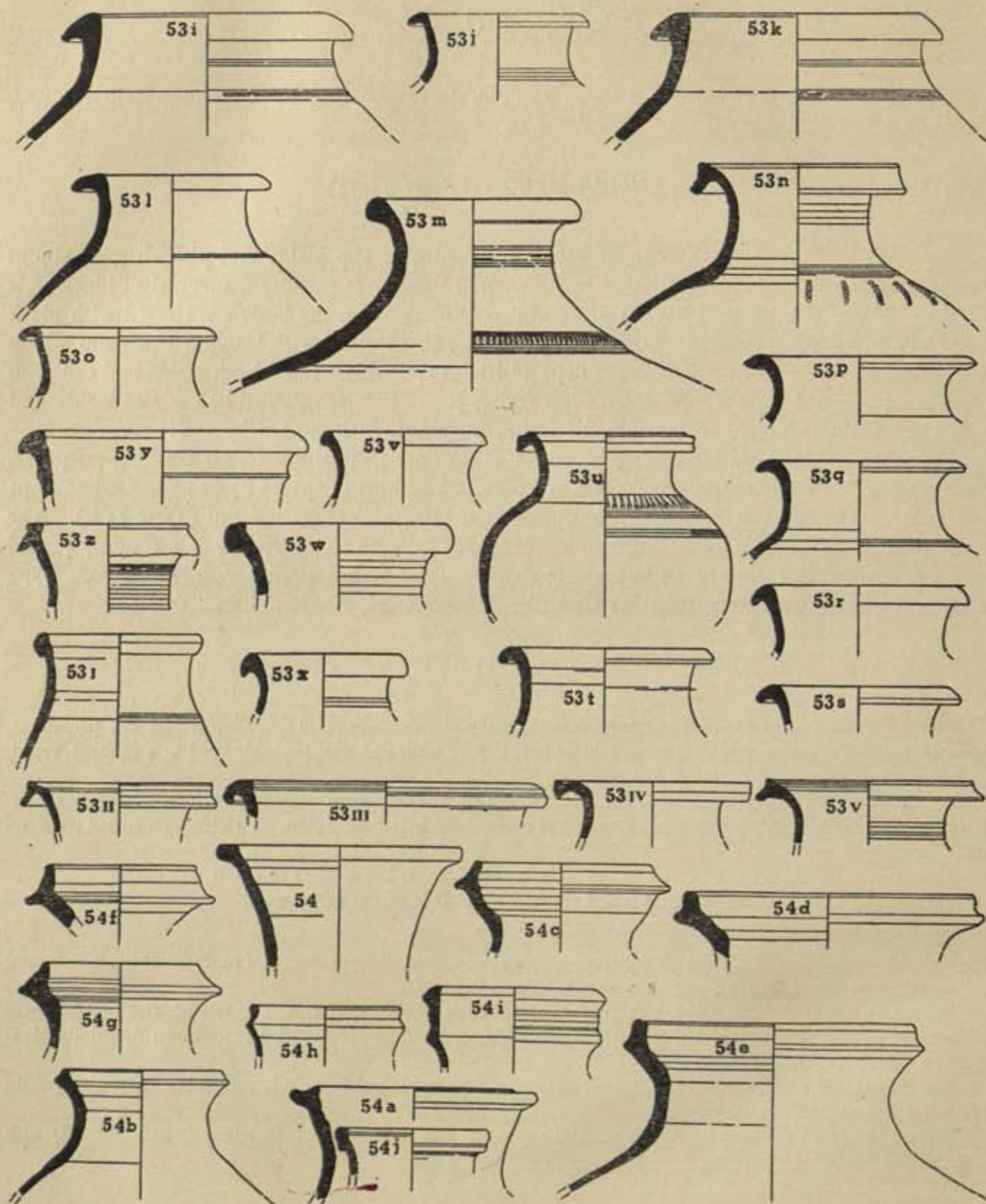


FIG. 16. Miscellaneous Types. Scale  $\frac{1}{4}$



## POTTERY : MISCELLANEOUS WARES

Variant 48 d is of well-burnt light red ware. It is treated with light red slip inside and out.

Variant 48 e is of light red ware with flared rim and shallow corrugation on the outer face. It is devoid of any slip or wash.

Variant 48 f is of buff ware with thickened rim and corrugated sides. It is devoid of any slip or wash.

Variant 48 g is of buff ware with knife-edge rim. Of fine fabric, it is treated with a wash.

Variant 48 h shows a sharp vertical rim and has pink lustrous black slip inside and out. It has affinity with the

N. B. P. Ware. From Period Ib.

Variant 48 i is a thick shallow bowl of buff ware with a flat base.

Variant 48 j is of light red ware with beaded rim. It is treated externally with red slip and internally with red wash.

From Period IV.

Variant 48 k is a deep bowl of pinkish grey ware with an externally grooved rim. It is treated both internally and externally with polished pinkish grey slip. From Period III.

Variant 48 l is of light red ware with knife-edge rim. It is treated both internally and externally with red slip. From Period Ib.

Variant 48 m is a cup of buff ware with vertical rim and a flat base. It is devoid of any slip or wash. This type is common from Period Ib.

Variant 48 n is of grey ware with nail-head rim. Of medium fabric, it is treated with grey slip inside and out. The outer base appears to be rubbed smooth and has a thin reddish film.

Variant 48 o is of light red ware with vertical feature-less rim. It is treated with red slip inside and out.

*Type 49.* A bowl of grey ware with thickened rim and prominent corrugations on the body. It is a thin well-burnt ware treated both internally and externally with black slip. From Period Ib.

Variants 49 a-b have a dumpy ware.

Variant 49 c is of light brown ware with incurved rim and corrugated sides. It is treated both internally and externally with polished light brown slip.

*Type 50.* Fragment of a dish of red ware having flat rim with internal striations. Of medium fabric, it is treated both internally and externally with chocolate slip. From Period II.

*Type 51.* Fragment of a vase of gritty light red ware with incurved thick rim with a groove. Of medium fabric, it is treated with a red wash. It is externally soot-stained. From Period IV.

Variant 51 a differs from the above in having thinner wall. It is roughly potted and shows an admixture of large grits.

*Type 52.* Fragment of a frying pan of light red ware with thickened multi-grooved rim. Of smooth fabric without any grits, it is devoid of any slip or wash and is roughened below rim inside and has a layer of sand outside presumably for frying purposes as indicated by soot-stains outside. From Period Ib.

*Type 53.* Fragment of a vase of dirty gritty red ware with out-turned beaked rim and high neck with a groove. Of medium micaceous fabric, it is treated externally with red slip, which continues internally up to rim. From Period IV.

Variant 53 a differs from the above in having three grooves on the neck. It is treated with red wash inside and out. A black band is painted on the outer surface of the neck. From Periods II-III.

Variant 53 b is of gritty light red ware with externally everted thickened undercut rim having ripples on the neck. Of medium and micaceous fabric, it is treated both internally and externally with red slip.

Variant 53 c differs from 53 b in having a beaded rim. It is treated with dark red slip outside.

Variant 53 d is a smaller vase with out-turned grooved rim, and a ledge at the shoulder. Of gritty fabric, it is treated with light red slip outside.

Variant 53 e differs from the main type in having a nail-head rim. Of fine gritty and micaceous fabric, it is treated externally with red slip, which continues inside up to half an inch below the slip.

Variant 53 f has thickened out-turned rim. It is treated externally with red slip.

Variant 53 g differs from the above in having everted undercut rim.



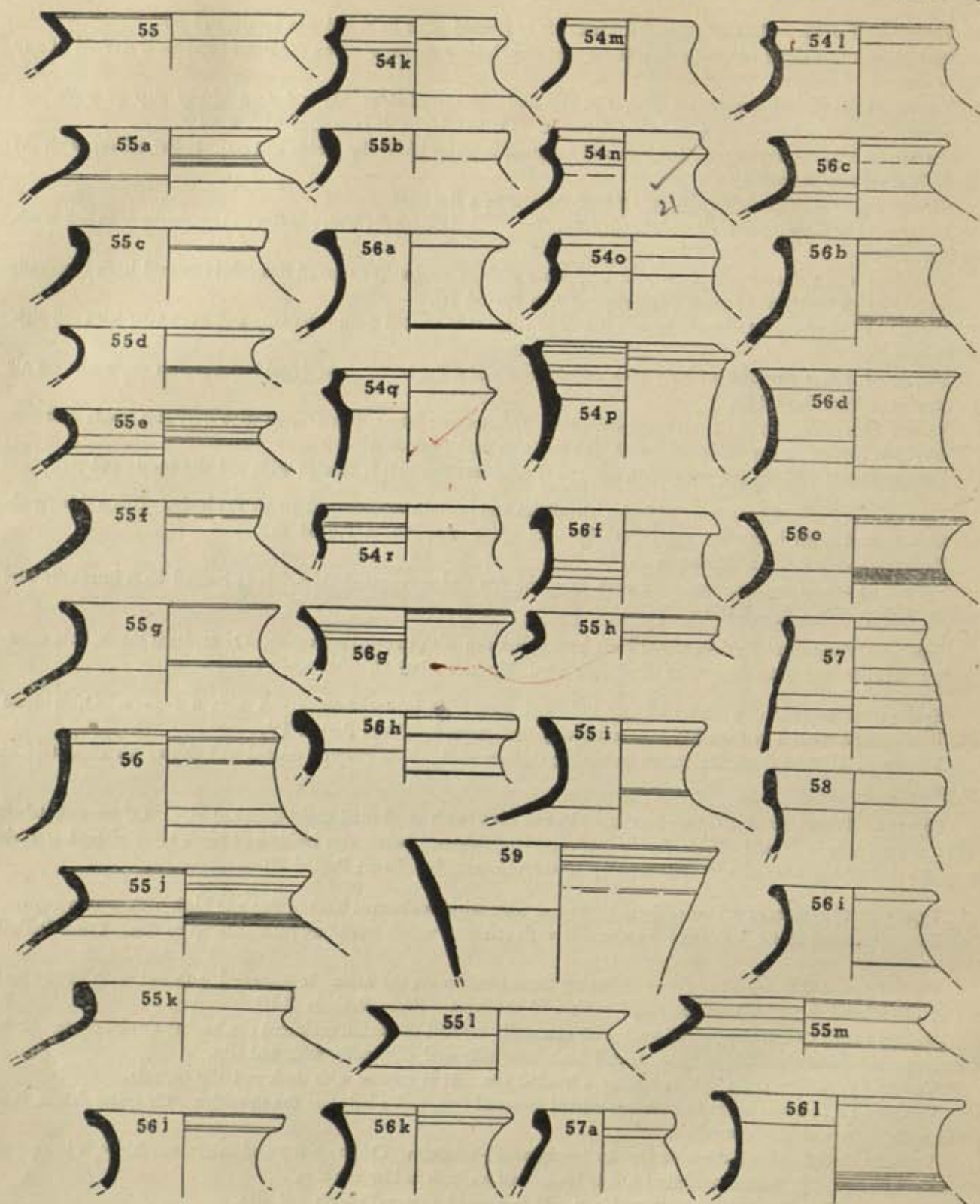


FIG. 17. Miscellaneous Types. Scale  $\frac{1}{4}$



## POTTERY : MISCELLANEOUS WARES

Variant 53 h differs from the above in having numerous ripples on the high neck. Of medium fabric mixed with sand particles, it is treated externally with red slip and has incised design resembling cuneiforms on shoulder.

Variant 53 i differs from the main type in having a drooping rim, a projection at the neck and ridges on the shoulder. It is treated externally with red slip. The outer surface below shoulder is roughened and soot-stained. From Period III.

Variant 53 j has a beaked rim. It is treated externally with red slip.

Variant 53 k is of dirty red ware with gritty fabric. It is treated externally with light red slip.

Variant 53 l is of an everted rim with a groove on the shoulder. Of gritty medium fabric showing mica dusting, it is treated externally with bright red slip.

Variant 53 m has a thickened rim. It has grooving on the neck and a register of incised scallops on the shoulder. Of medium fabric, it is treated externally with red slip.

Variant 53 n has an everted undercut rim and corrugation on the neck and shoulder. Of medium and micaceous fabric, burning grey in the section, it is treated externally with dark red slip which continues inside up to rim. It has punched design on the shoulder.

Variant 53 o has a beaked rim and thin body. It is treated externally with red slip which continues up to inner rim. From Period III.

Variant 53 p has a thickened splayed out rim and is treated with greyish red wash outside.

Variant 53 q has a corrugated shoulder. Of medium micaceous fabric, it is treated externally with dull red wash. From Period III.

Variant 53 r has a beaked rim. It is of gritty fabric and is treated externally with red slip. From Period III.

Variant 53 s has a more prominent beaked rim.

Variant 53 t has a ledge at the neck and is soot-stained.

Variant 53 u has a grooved beaked rim. Of medium gritty fabric, which has burnt grey in the section, it is treated externally with dull red slip. It has a register of incised wedges on the shoulder.

Variant 53 v has a beaded rim. It is treated with red slip externally. From Period III.

Variant 53 w has a thickened everted grooved rim and a corrugated neck. It is treated externally with red slip and internally with red wash. From Period III.

Variant 53 x has an everted undercut rim. It is treated externally with dark red slip which continues up to neck inside. From Period III.

Variant 53 y is of buff ware with a clubbed rim and a flanged neck. Of medium micaceous fabric, it is devoid of any slip or wash.

Variant 53 z is of fine red ware with a beaded projection on the rim. Of fine fabric, it is treated with deep orange red slip internally, and a deeper red slip on outer lip, which burns blackish red on neck. It is remarkable for the pigment of the slip and its polished finish. From Period III.

Variant 53 i is of light red ware with everted beaked rim and high grooved neck. Of medium fabric, which has burnt grey in the section, it is practically blackened outside either in the kiln or by subsequent exposure to fire.

Variant 53 ii has everted grooved rim and thin fabric. It is treated with bright red slip outside.

Variant 53 iii has less grooves on the rim than 53ii and a thicker fabric. It is treated externally with red slip which continues up to rim inside.

Variant 53 iv differs from the main type in having a splayed out nail-head rim. It is treated internally and externally with red slip.

Variant 53 v has internal ridges on the shoulder. It is treated with red slip inside and out.

*Type 54.* Fragment of a well-burnt vase of light red ware with flared mouth and a splayed out rim. Of medium fabric, it is treated internally with red slip which continues externally up to rim. It is light orange inside and light red outside. From Period Ib.

Variant 54 a has internal corrugations and is treated internally and externally with red slip.

Variant 54 b has stippled design on outer shoulder and is treated with light red slip which continues up to neck inside.

Variant 54 c has a beaded incurved rim and is treated with red slip inside and out.



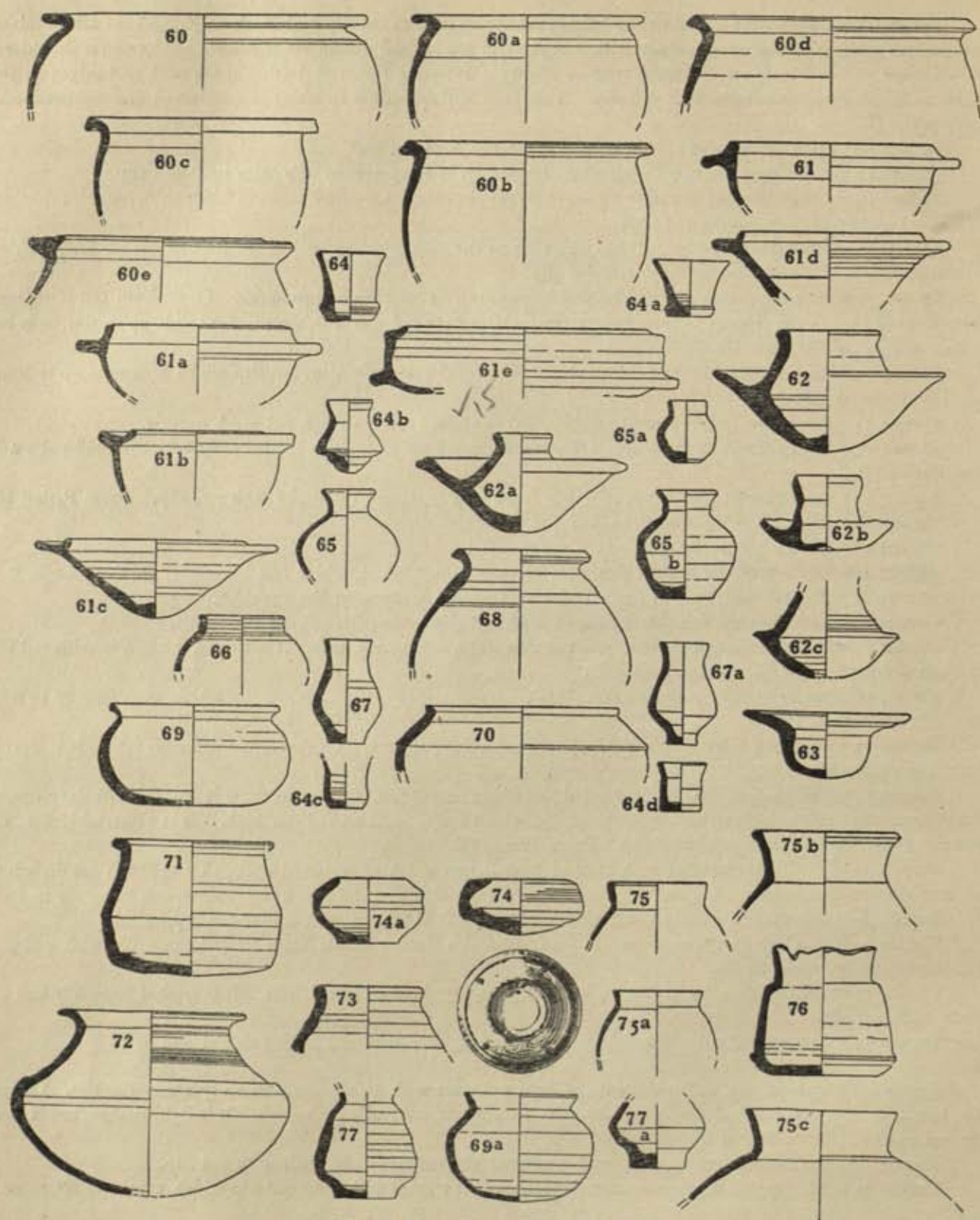


FIG. 18. Miscellaneous Types. Scale  $\frac{1}{4}$



## POTTERY : MISCELLANEOUS WARES

Variant 54 d has a thick featureless rim and is devoid of any slip or wash.

Variant 54 e has a flat grooved top and an external ledge for receiving a lid. It is internally corrugated and is of medium fabric which has burnt grey in the section. It is treated externally with red slip which shows indifferently stamped mat impressions forming small irregular grids. The interior below shoulder has gritty greyish surface showing dents made by a sharp tool.

Variant 54 f has a vertical rim, a flange to receive lid and internal corrugations. It is treated with red slip inside and out.

Variant 54 g is similar to 54f but devoid of any slip or wash.

Variant 54 h is of well-burnt brick red ware with a vertical flat rim. It is treated both internally and externally with a wash.

Variant 54 i has a thickened rim with externally grooved neck. It is treated internally with grey slip and externally with red slip.

Variant 54 j has an everted collared rim with a groove. It is treated with red slip externally. From Period IV.

Variant 54 k has a flat-rim. It is treated externally with a wash and is roughly potted internally below shoulder.

Variant 54 l is of well-burnt light red ware with internally concave rim. It is treated with a wash.

Variant 54 m has featureless rim. It has red wash outside.

✓ Variant 54 n has a vertical rim.

2) ✓ Variant 54 o is practically devoid of the ledge.

Variant 54 p has a very small featureless rim. It is treated with bright red slip outside and blackish red slip inside.

Variant 54 q has an incurved rim. It is roughly finished internally below neck and is treated with red slip outside.

Variant 54 r has an incurved rim with corrugations below the neck. It is treated externally with a bright red slip.

*Type 55.* Fragment of a vase of light red ware with sharply out-turned rim. Of gritty micaceous fabric, it is treated externally with red slip which continues internally up to rim. From Period IV.

Variant 55 a has a corrugated neck and a ledged shoulder. It bears soot-stains.

Variant 55 b has a clubbed rim.

Variant 55 c is of brick red ware with thickened out-turned rim. It is devoid of any slip or wash.

Variant 55 d has ridges on the shoulder and is thinner than 55a.

Variant 55 e has a thick out-turned rim and a groove at the neck.

Variant 55 f is of brick red ware with a clubbed rim. Of straw mixed fabric, it is treated with brick-red wash inside and out. From Period III.

Variant 55 g has an everted flat rim and ridges on the shoulder. It is treated with dirty red slip inside and out.

Variant 55 h has thick out-turned rim similar to 55f.

Variant 55 i is of buff ware with out-turned clubbed rim. Of coarse fabric, it is devoid of any slip or wash.

Variant 55 j is of red ware with out-turned internally grooved rim and groovings on the shoulder. It is treated with dirty red slip inside and out and is soot-stained.

✓ Variant 55 k is of buff red ware with thick everted rim. From Period II.

Variant 55 l has a flared rim and an angular neck. It is treated with red slip outside, which continues up to rim.

✓ Variant 55 m is of well-burnt red ware with thick out-turned rim and two grooves on the shoulder. Of gritty micaceous fabric, it is treated externally with a bright red slip. From Period II.

✓ *Type 56.* Fragment of a vase of light red ware with nail-head rim and long neck. Of medium fabric, it is devoid of any slip or wash. From Period II.

✓ Variant 56 a has a clubbed rim with ridges on the shoulder. It is treated with red slip outside which continues on the rim for three-fourth of an inch. Two streaks of dark red slip have trickled down in the interior.

✓ Variant 56 b has a beaded rim.



- ✓ Variant 56 c is well-burnt red ware with a beaked rim.
- ✓ Variant 56 d shows everted rim and tapering sides. Of gritty medium fabric, it is treated externally and internally with bright red slip. From Period Ib.
- ✓ Variant 56 e has a beaked rim with grooved shoulder. It is treated with red slip externally.
- ✓ Variant 56 f has everted undercut rim with internal corrugations.
- ✓ Variant 56 g has a flared grooved rim. It is devoid of any slip.
- ✓ Variant 56 h is well-burnt gritty red ware with thick flared rim. It is externally treated with red slip.
- ✓ Variant 56 i has a beaded rim similar to 56h.
- ✓ Variant 56 j has a simple out-turned rim and is treated with red slip inside and out.
- ✓ Variant 56 k has a nail-head rim. It is devoid of any slip or wash.
- ✓ Variant 56 l is of gritty micaceous buff ware with splayed out rim.
- ✓ *Type 57.* Fragment of a cylindrical roughly potted vase of buff ware with everted rim and corrugated profile. Of medium fabric, it is devoid of any slip or wash. From Period Ib.
- ✓ Variant 57 a has a beaded thick rim.
- ✓ *Type 58.* Fragment of a vase of light red ware with vertical externally collared rim. Of medium fabric, it is treated with red slip externally. From Period Ib. This type is common on early North Indian sites and may be compared with Hastināpura<sup>1</sup> Type XXXI and Ahichchhatra<sup>2</sup> Type 10a.
- ✓ *Type 59.* Fragment of a vase with featureless rim and tapering sides. Of gritty medium fabric, it is devoid of any slip. From Period II.

#### (iv) *Miscellaneous Wares (Types 60-85)*

Sometimes micaceous bowls were also used for cooking purposes (Type 60). There are three main types of lids, viz., of the flanged and ink-pot varieties and a variety with horizontal splayed out rim and a round base. Besides these, a number of miniature vases were also found. They might have been used as toys for children and a few possibly as thimbles. Amongst the miniature vases an ink-pot with four holes perforated for suspension is very interesting (Type 74). Rimless vases were generally treated with slips and were also used for cooking purposes (Type 80). Bowls turned on a fast wheel are well-burnt (Type 81a). Basins with incurved and clubbed rim having ridged shoulder are very common in Periods II and III. Some of the basins illustrated here are similar to those found at Kumrahar excavations from the contemporary layers.

#### FIGS. 18-19

*Type 60.* Fragment of a bowl of micaceous gritty light red ware with horizontally splayed out rim. Of medium fabric, it is treated internally with light red wash and is blackened externally by soot-stains. From Period IV.

Variant 60 a differs from the above in having a ledge at the shoulder and is treated internally and externally with red slip.

Variant 60 b has a grooved rim.

Variant 60 c has a nail-head rim. Of fine fabric, it is treated with bright red slip inside and out.

Variant 60 d is of light red ware with beaded rim.

Variant 60 e has a ledge-like thickened rim and is treated with red slip internally and red wash externally.

<sup>1</sup> *Ancient India*, Nos. 10-11, p. 60.

<sup>2</sup> *Ibid.*, No. 1, p. 42.



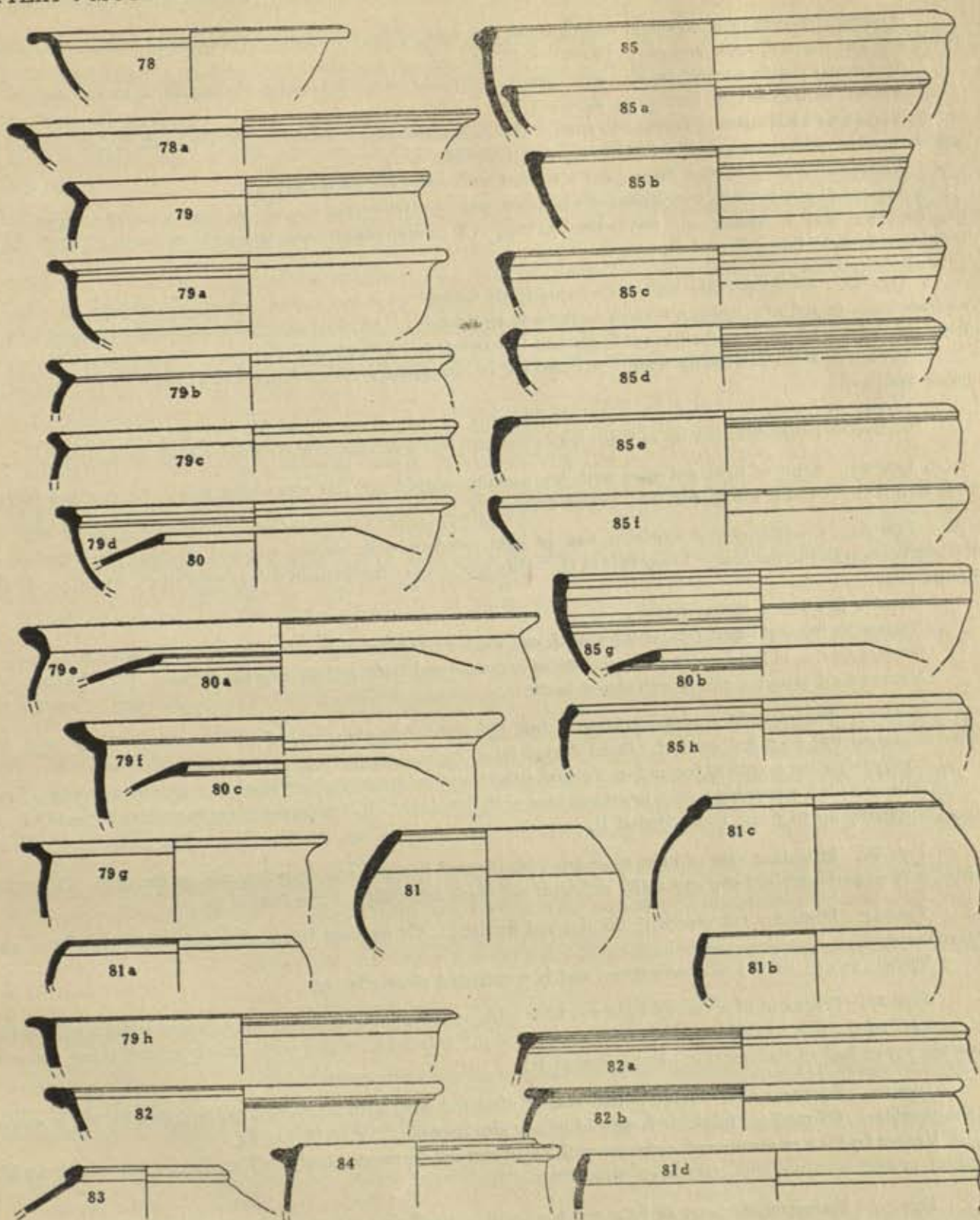


FIG. 19. *Miscellaneous Types.* Scale  $\frac{1}{4}$



*Type 61.* Fragment of a flanged lid of greyish red ware with blunted rim. Of medium fabric, it is thoroughly blackened and charred inside and out. From Period IV.

Variant 61 a differs from the above in having a grooved rim. It is treated externally with red slip.

Variant 61 b differs in having an incurved rim.

Variant 61 c has tapering corrugated sides with a prominent sagger base. It is treated with bright red slip inside up to shoulder which continues a little lower down outside.

Variant 61 d has a thicker flange, and is treated with red wash inside and out.

✓ Variant 61 e is a distinctive variant of well-burnt red ware with incurved rim and two flanges, a larger one near the flat base and a smaller one just below the rim. Of medium fabric, it is treated both internally and externally with red slip. From Period II.

*Type 62.* An ink-pot like lid with a prominently flanged waist and a thick sagger base of light red ware. Of medium fabric mixed with straw, it is treated externally above flange with red slip which continues internally up to rim. It has greyish core indicating half-burnt fabric and is soot-stained around neck and rim. From Period IV.

Variant 62 a differs from the main type in having an out-turned grooved flange. It is treated with dirty red wash inside and out.

Variant 62 b differs in having a pared straight rim. It has soot-stains inside and out.

Variant 62 c differs in having red slip both externally and internally and corrugations above the flange.

✓ *Type 63.* A lid of light red ware with horizontally splayed out rim and round base. Of medium fabric, it is treated with red slip inside and out. From Period Ib.

✓ *Type 64.* Roughly potted miniature vase of light red ware with blunted rim and tapering sides thickened at the conjunction of the flat base. From Period II. This type is very common in the contemporary layers of the Pāṭaliputra sites.

✓ Variant 64 a has a flaring profile.

✓ Variant 64 b has pointed rim, oblique neck and thick corrugated base. It is treated with a wash.

✓ Variant 64 c is of light red ware with internally corrugated body and sharply pared base. From Period II.

✓ Variant 64 d shows a simple cylindrical body.

*Type 65.* Fragment of a miniature vase of buff red ware with globular body. Of medium fabric, it is internally blackened and corroded outside. From Period III.

Variant 65 a has a vertical featureless rim and a thick wall with internal corrugations. It is treated with a wash.

✓ Variant 65 b is a roughly potted miniature vase with flared rim. It is treated externally with red slip which continues internally up to rim. From Period II.

✓ *Type 66.* Miniature vase of light red ware with blunted rim and corrugated profile on the neck. Of medium fabric, it is treated with red slip externally and with red wash internally. From Period Ib.

✓ *Type 67.* Miniature tall vase with flat rim and flat base. Of medium fabric, it is devoid of any slip or wash. From Period II.

✓ Variant 67 a is devoid of corrugations and is constricted above the base.

*Type 68.* Fragment of a vase of light red ware with out-turned clubbed rim and grooved thickened shoulder. Of medium fabric, it is treated externally with dark red slip. It is made of two parts, the upper half being smoother than the lower half in the interior. From Period III.

*Type 69.* Fragment of a roughly potted vase of dirty red ware with an everted clubbed rim having a groove at the shoulder. Of medium fabric, it is devoid of any slip or wash. From Period IV.

✓ Variant 69 a is a miniature red ware vase with flared rim and corrugated body. Of medium gritty micaceous fabric, it is treated with red slip externally. From Period II.

*Type 70.* Fragment of a vase of light red ware with a small rim and a carinated shoulder. Of medium half-burnt greyish fabric, it is treated with red slip externally. From Period IV.



## POTTERY : MISCELLANEOUS WARES

✓ *Type 71.* Vase of light red ware with out-turned rim, long neck and a carinated base. Of fine sand mixed fabric, it is treated with a wash and is corroded at the exterior base. This shape is popular in modern metal ware. From Period II.

*Type 72.* It is a well-potted vase of light red ware with out-turned rim, rippled neck and carinated shoulder. Of medium micaceous fabric, it is treated with red slip up to carination outside and on rim inside. It has soot-stains. From Period IV.

✓ *Type 73.* Fragment of a small vase of light red ware with a clubbed rim and corrugated profile. Of medium fabric, it is treated with a wash. From Period II.

✓ *Type 74.* Miniature ink-pot of red ware with four holes perforated for suspension. Of medium fabric, it is treated both internally and externally with a wash. From Period II.

✓ *Variant 74 a* has an incurved rim and a flat base without any holes. It is treated with red slip.

✓ *Type 75.* Fragment of a small vase of light red ware with a simple rim and neck. Of medium fabric, it is devoid of any slip or wash. From Period Ib.

✓ *Variant 75 a* is of fine fabric with flat rim. It is treated with red wash inside and out.

✓ *Variant 75 b* has a beaded rim. It is treated externally with a wash and is rough inside below neck.

✓ *Variant 75 c* is of gritty light red ware with a slightly constricted neck. From Period II.

*Type 76.* A small pot of greyish red ware with flanged rim and carinations at the shoulder and above the flat base. The shape is common in metal ware. From Period IV.

✓ *Type 77.* Fragment of a miniature vase of light red ware with corrugated body and flat base. Of medium fabric, it is treated both internally and externally with bright red slip. From Period II.

✓ *Variant 77 a* differs from the above in having a thicker flat base.

*Type 78.* Fragment of a basin of light red ware with a drooping rim. Of medium fabric, it is treated with bright red slip inside and out. From Period III.

*Variant 78 a* has an everted thick rim and is soot-stained.

✓ *Type 79.* Fragment of a basin of light red ware with an out-turned rim. Of medium fabric, it is treated with red slip inside and out. From Period II. This type with its variants is common at Pāṭaliputra sites.

✓ *Variant 79 a* has externally clubbed rim. It is treated with bright red slip inside and out. From Period Ib.

✓ *Variant 79 b* has an out-turned rim. It is externally soot-stained. From Period Ib.

✓ *Variant 79 c* has an everted small rim and is treated with red slip turning crackled black internally. From Period

II.

✓ *Variant 79 d* is a well-burnt red ware. It is treated with rich bright red slip and is roughly finished externally.

✓ *Variant 79 e* has a thick rim. It is a roughly potted basin and is treated with bright red slip inside and out.

From Period Ib.

*Variant 79 f* has a thick splayed out rim concave at the top. It is treated with dark slip externally. From Period III.

*Variant 79 g* has an out-turned grooved rim and is treated with very bright red slip inside and out.

*Variant 79 h* has a horizontally splayed out grooved rim. It is treated with red wash inside and out.

✓ *Type 80.* Fragment of a rimless vase of gritty red ware of medium micaceous fabric. It is treated with bright red slip. From Period Ib.

✓ *Variant 80 a* is similar to the main type but has dark red slip inside and bright red wash outside. From Period

II.

✓ *Variant 80 b* is of coarse fabric with thick internally corrugated profile. It is treated with a wash inside and red slip outside which is partially soot-stained.

✓ *Variant 80 c* tends to develop a clubbed rim. Of medium micaceous fabric, it is dull red ware and is devoid of any slip.



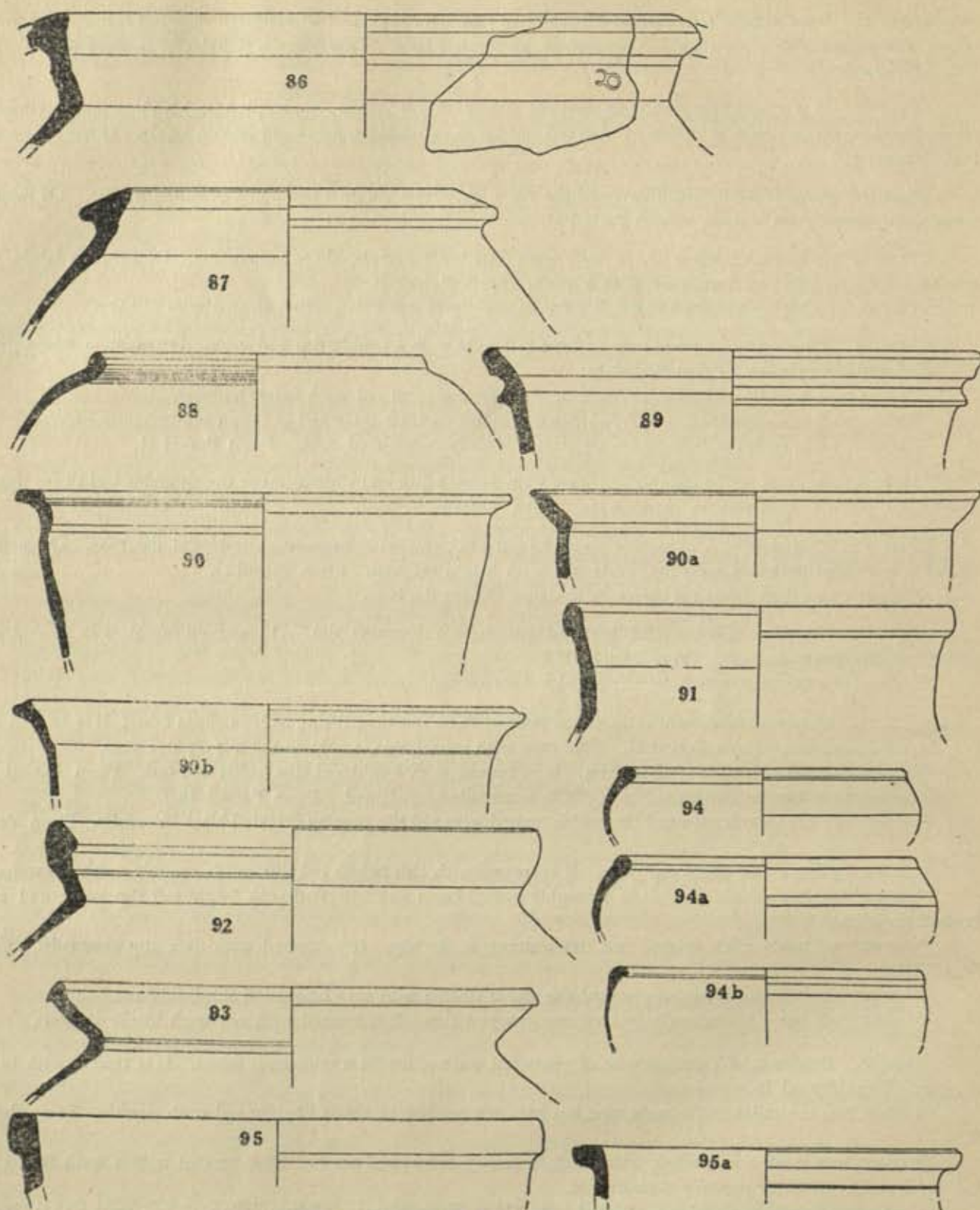


FIG. 20. Miscellaneous Types. Scale  $\frac{1}{2}$



## POTTERY : MISCELLANEOUS WARES

*Type 81.* Fragment of a bowl of light red ware with thick incurved rim. Of sandy and gritty fabric, it is devoid of any slip or wash. From Period IV.

✓ *Variant 81 a* is a fairly well-burnt red ware with flanged incurved rim. Of fine fabric, it is turned on a fast wheel and is treated with red slip inside and out. From Period Ib.

✓ *Variant 81 b* has lesser curvature of the rim.

✓ *Variant 81 c* has a thick incurved rim with an external groove below the flange. Of gritty micaceous fabric, it is treated with red slip internally and with a wash outside.

*Variant 81 d* is of buff ware with straight flanged rim. It is treated with buff slip inside and out. It has smoother finish outside. From Period III.

✓ *Type 82.* Fragment of a basin of gritty light red ware with splayed out thick grooved rim. Of medium fabric, it is treated with a wash. From Period II.

*Variant 82 a* has a clubbed rim. It is treated with red wash inside and out. From Period III.

✓ *Variant 82 b* has an everted rim. Of medium fabric, it is treated with dark red slip inside and out. From Period II.

✓ *Type 83.* Fragment of a vase of gritty micaceous buff ware with everted clubbed rim. Of medium fabric, it is devoid of any slip or wash. From Period II.

*Type 84.* Fragment of a roughly potted bowl of light red ware with incurved rim and a ledge to receive the lid. Of medium fabric, it is treated with bright red slip inside and out. From Period III.

✓ *Type 85.* Fragment of a basin of greyish red ware with clubbed rim. Of gritty micaceous fabric, it is treated externally with red wash. From Period II.

✓ *Variant 85 a* differs from the main type in having a groove just below the rim. It is of gritty buff ware.

✓ *Variant 85 b* is of greyish red ware with nail-head rim and corrugated profile. Of medium gritty fabric, it is treated with a wash and is rough outside and smoother inside. From Period II.

*Variant 85 c* has an incurved thick rim. Of gritty micaceous fabric, it is devoid of any slip or wash.

✓ *Variant 85 d* has a clubbed rim and ridged shoulder. It is treated with red slip inside. From Period II-III.

*Variant 85 e* has a thick incurved rim with a groove below the rim. It is treated with red slip inside and out.

*Variant 85 f* has an incurved thick rim. It is treated with red slip inside and out.

✓ *Variant 85 g* is a well-burnt basin with thick rim and internally corrugated profile. It is treated with red slip inside and out. From Period Ib.

✓ *Variant 85 h* has an incurved rim and ridged shoulder. It is treated with bright red slip externally and with red wash internally. From Periods II-III.

### (v) Miscellaneous Wares (Types 86-95)

Some of the large storage Jars have decorations on the body. *Type 86* has a taurine symbol deeply punched. This symbol is common on the punch-marked and uninscribed cast coins.

FIG. 20

✓ *Type 86.* Neck of a large storage jar of light red ware with clubbed rim and a prominent angle on the inner shoulder. Of medium fabric, burning grey in the section, it is treated with red slip externally. It has a deeply punched taurine symbol, which is common on the uninscribed cast coins. From Period II.

*Type 87.* Fragment of a vase of light red ware with externally thick beaked rim. Of medium micaceous gritty fabric, it is treated with red slip outside which continues up to the rim inside. From Period IV.

✓ *Type 88.* Fragment of a vase of light red ware with beaded rim. Of medium fabric, it shows mica dusting on the inner surface below grooved rim, and is externally treated with light red slip. From Period Ib.



✓ *Type 89.* Fragment of a large storage jar of dirty red ware with everted collared rim and a ledge at the neck. Of gritty coarse fabric, it is treated internally with red slip. From Period II.

✓ *Type 90.* Fragment of a vase of light red ware with a grooved horizontally splayed out rim. Of medium fabric, it is treated with dark red slip inside and out. It is roughly potted showing uneven surface outside, whereas the interior is smoother. From Period II.

✓ *Variant 90 a* has an everted rim. It is of buff red ware and is devoid of any slip or wash. From Period Ib.

✓ *Variant 90 b* has a beaked rim. Of medium fabric, it is treated with red slip inside and out.

*Type 91.* Fragment of a jar of dirty red ware with everted collared rim. Of gritty medium fabric, showing mica dusting, it is treated with greyish red slip internally and light red slip externally.

✓ *Type 92.* Fragment of a large storage jar of light red ware with internally concave rim. Of medium fabric, it is treated with red slip inside and out. From Period II. This is comparable to Type 34r which has a much smaller size.

✓ *Type 93.* Fragment of a vase of light red ware with beaked rim and oblique shoulder. Of medium micaceous fabric, it is treated with a wash inside and out. From Period Ib. This is analogous to Type 31r from VSC.

✓ *Type 94.* Fragment of a bowl of grey ware with beaded rim. Of medium fabric, it is treated with black slip inside and out. From Period Ib.

*Variant 94 a* has shiny pinkish grey slip outside.

*Variant 94 b* has an internally beaked rim. It is of silvery pinkish grey ware and is treated with golden polish inside and out.

✓ *Type 95.* Fragment of a vase of light red ware with thick collared rim. Of medium fabric, it is devoid of any slip or wash. From Period II.

*Variant 95 a* has an everted rim. Of well-burnt gritty fabric, it is devoid of any slip or wash. From Period III.

## F. DECORATED SHERDS

The sherds catalogued below as Nos. 1-7 are decorated with impressed rosette resembling spoked wheel with pellets, leaf and solar designs. Some sherds are also impressed with *Srivatsa* or *purnagata* motifs on the body and small rosettes on the neck with angling hooks on the shoulder. Most of the impressed sherds come from Period Ib.

### Pl. XI A

✓ 1. Fragment of a vase of red ware decorated with impressed rosette resembling a spoked wheel with pellets and leaf design with or without pellets. From Period Ib.

✓ 2. Fragment of a vase of red ware decorated with impressed leaf design. From Period Ib.

✓ 3. Fragment of a vase of red ware decorated with impressed solar design. From Period Ib.

✓ 4. Fragment of a vase of red ware decorated with impressed rosette design resembling a spoked wheel with pellets and leaves with or without pellets. From Period Ib.

5. Fragment of a vase of red ware with a register of incised slanting strokes at the shoulder and impressed *Srivatsa* symbol on the body. From Period IV.

✓ 6. Fragment of a vase of red ware decorated with 2 register of slanting incisions on the shoulder and an impressed vase-and-foliage design on the body. From Period Ib.

7. Fragment of a vase of red slipped ware decorated with impressed registers of small rosettes on the neck, angling hooks on the shoulder and solar design on the body. From Period IV.



## G. PAINTED SHERDS

### Pl. XI B

Only three painted pot-sherds have been found from Chak Rāmdās site and are catalogued below as Nos. 8-10. All of them are from the earliest level i.e., Period Ia and show broad irregular daubs painted in orange or black colour with a bold brush.

- ✓ 8. Fragment of a dish of pinkish ware with incurved rim. Of medium fabric, it is treated with dark brown slip inside and out and has irregular daubs painted with a broad brush in orange colour.
- ✓ 9. Fragment of a dish of well-polished pinkish red ware with incurved rim. Of medium fabric, it is treated internally with broad irregular daubs painted in black, with a brush.
- ✓ 10. Fragment of a dish of well-polished pinkish ware. Of medium fabric, it is treated with red slip inside and out and has mottled design painted in black and pinkish red with a bold brush.

## H. SPOUTS

Only two types of spouts were unearthed from this excavation. The first type is represented in the form of a *makara-mukha* (crocodile head) which is very common on the North Indian sites. The other type is represented by a grotesque human head.

- 1. Spout of a red ware vase represented in the form of a *makara-mukha*. Of medium fabric, it is treated with red slip. Such spouts are commonly found on the North Indian sites like Rājghat, Ahichchhatrā etc. From Period III. (pl. X C).
- ✓ 2. Spout of a grey ware vase representing a grotesque human head. Of medium fabric, it is treated with black slip. From Period II. (pl. XIX D).



## OTHER FINDS

## A. TERRACOTTA OBJECTS

(i) *Human Figurines*

THE excavation yielded human figurines which came variously from Periods II, III and IV.

## (a) MOTHER GODDESS

The Mother Goddess is normally represented at Vaiśālī by archaic figures, entirely modelled by hand. They are characterized by bird-like face, prominent breasts, broad hips, tapering arms and legs, and applied and punched ornaments which include collar, necklace and a prominent girdle. Eight examples of different varieties have been recovered from the present excavation, but only two of them (Nos. 2 and 8) come from stratified deposits and are assignable to Period II (c. 150 B. C.—100 A. D.). Figurine No. 1 is remarkable for showing an applied eye with a slit in the middle which is an uncommon feature in North India but very common on the Mother Goddess figurines from Gandhāra.<sup>1</sup>

Vaiśālī has also yielded a few moulded specimens of the Mother Goddess which are dealt with in the succeeding section, (below, p. 53). Only select specimens of the hand-modelled type are illustrated :

1. Head and bust of a crude female figurine in red colour with applied and incised decoration. It is a remarkable example of the archaic style in which the whole figurine is modelled by hand. It has bird-like features, no forehead, tapering stumps for arms, and the nose indicated by pinching clay. The eyes are done in applique with incised slit in the middle and are comparable with those of Gandhāra figurines.<sup>1</sup> The ornaments consist of torques, necklace and bangle executed in applique. A pendant necklace passing over the shoulders and along the breasts is made of a roll of clay, now partly preserved. An applied circular strip with incisions on the forepart of the head just above the nose, stands for either an ornament or tuft of hair. The head of the figure is otherwise quite plain except for a hole which communicates through the back of the head and which was probably meant for suspending the figure with a thread. Ht. 2.75." From mixed deposits. (VS II, 181), pl. XII, 1.

2. Head<sup>2</sup> and bust of a female figure with punched and applied decorations and tapering stump-like arms. It has emphatic bird-like features with a squat head and lateral projecting stumps standing for ears. Could they be horns? The nose is modelled by working up the clay and paring and pricking the lower end with two holes for nostrils. The eyes are incised with pupils marked by punched circlets. The mouth is indicated by a short slit mark on a thumb-pressed surface. A circlet is punched on the forehead. Torques, necklace suspended between the prominent breasts and ornaments round the horn-like projections executed with applied strips are invariably missing. Hair is indicated by an applied strip at the back with a few incisions. Well-burnt. Hand-modelled. Red colour. Ht. 2.5." Period II. (VS II, 156), pl. XII, 2.

<sup>1</sup> D. H. Gordon : *Early Indian Terracottas*, *J. I. S. O. A.*, XI, pl. VIII, 6; pl. IX, 1-3.

<sup>2</sup> Compare *Ancient India*, No. 4, p. 108, pl. XXXI, 5.



## TERRACOTTAS : EARLY MOULDED FIGURINES

3. Female figurine with stamped lozenge-shaped eyes. Circlets punched on the breast nipples and at the navel. Hair done in three plaits falling on the back and indicated in applique. Elongated applique ears with heavy ear-discs stamped with a wheel design with spokes and pellets. Torque applied. Nose indicated by pinching the clay and mouth indicated by pressing. The figure shows two holes on the sides of the head which do not communicate and may have been meant for inserting incense sticks. Broken below hips. Hand-modelled. Red colour. Ht. 3.5". From mixed deposits (VS III, 247), pl. XII, 4.

4. Torso of a female figure, head and portion below the thigh missing; wears an applied pendant necklace decorated with dots in square punches and a torque ornamented with short incised streaks. The hands, originally projecting from the shoulders are now broken. It has an applique girdle decorated with dots within square punches. Hand-modelled. Bright red colour. Ht. 2.5". From mixed deposits. (VS III, 236), pl. XII, 3.

5. Female figurine with mutilated face, slender waist and broad hips. An elliptical necklace is shown by punched marks, passing outside the prominent breasts. The navel and the nipple of the surviving breast are indicated by perforated marks made probably with a sharp pointed tool. Tips of arms are mutilated. Legs are indicated by short unfinished projections. The head is very small. The nose is indicated by pinching the clay and eyes by incisions. A few irregular lines have been incised on the neck and above the girdle to indicate the presence of further jewellery. The girdle is shown by irregular punched points. Hand-modelled. Red colour. Ht. 3.8". From mixed deposits. (VS I, 61), pl. XII, 5.

6. Female figurine with mutilated head. Bird-like facial features with pinched nose, slit mouth, incised eyes, lug-shaped ears, with punched holes representing discoid ornament. It has slender waist, broad hip, short stumpy legs and tapering arms. Palms and feet are shown as cup-shaped, digitated by incisions. Prominent breasts with holes for nipples. Navel is shown by a hole. The girdle is shown by two incised lines. Hand-modelled. Greyish red colour. Ht. 3". From mixed deposits. (VS IV, 333), pl. XII, 6.

7. Bust of a female figure with nipples indicated by punched circlets. The figure wears a torque (missing) and a necklace executed in applique. Her hair falls on the back in a braid of two strands indicated in applique with incised strokes. Head, arms and portion below bust missing. Hand-modelled. Red colour. Ht. 2". From mixed deposits. (VS II, 166).

8. Female figurine with broad hips and mutilated face showing lozenge-shaped punched eyes. Circlets punched on the prominent breast nipples and at the navel. A circlet punched as ornament near each armpit. Hair done in a plait falling on the back, indicated in applique. Arms and legs broken. Hand-modelled. Red colour. Ht. 3.85". Period II. (VS II, 152).

### (b) EARLY MOULDED FIGURINES

Seven types of early moulded terracotta human figures come from Vaiśālī of which figurine 1 is related to the Mother Goddess and is remarkable for being a better preserved specimen of Ahichchhatrā<sup>1</sup> Type 2 to which it pertains. Figurines 2-3 are almost identical female types and are similar to figurine 4 with this notable difference that the latter reveals the nudity through a transparent drapery. These types together with the winged female type (No. 5) were already known from Spooner's excavations at Vaiśālī. Winged female figurines have also been found from Tamluk<sup>2</sup> and Kauśāmbi<sup>3</sup>, where the type is sometimes associated with serpent hoods. The winged human figures are common in the Gandhāra art<sup>4</sup> and appear to have been derived from the West Asian art.

<sup>1</sup> *Ibid.*, p. 109, pl. XXXIA. 10.

<sup>2</sup> P. C. Dasgupta, *The Early Terracottas from Tamralipti*.

<sup>3</sup> *Indian Archaeology*, 1953-54, pl. XI B.

<sup>4</sup> D. H. Gordon, *op. cit.*, pl. XV, 9, p. 171.



No. 6 is a unique figure showing a beautifully moulded head of a Nāga wearing a peaked head-dress, decorated with five serpent-hoods. This figure together with the winged female figure (No. 5) come from the make up of the mud-rampart belonging to Period Ib (c. 300-150 B.C.) and are the earliest terracotta human types found at Vaiśālī. The remaining moulded specimens are attributable to Period II (c. 150 B. C.—100 A. D.). All the types are catalogued below and are illustrated with the exception of No. 7.

1. A female figure, probably Mother Goddess, with beautiful moulded face and elaborate trefoil headdress showing three pearl-studded medallions, one each on the crown and the two sides. From the lateral medallions is suspended an ornament consisting of a central axis flanked by serpent-like pearl-strands and from these hangs on each side a streamer of minute rosettes. The figure wears heavy circular discs studded with pearls in the ears, a torque of two strands, a long necklace of pearls and a string of pearls fringing the hair on the forehead. The figure wears upper garment indicated by parallel oblique incisions on the bust, tightened by a waist-band, which passes over the pendant necklace. The figure has an oval face and stands with hands easily suspended along the sides. There is a hole at the back of the crown probably for inserting incense stick. Red colour with grey core. Ht. 3.25". Period II. (VS II, 153), pl. XIII, 1.

2. Fragment of a female figurine preserved only from the waist to the ankles, with the left leg bent at knee. The figure wears an elaborate girdle of three strands from which are suspended two rows of bell-like ornaments. Traces of *udarabandha* or pearl-necklace are seen from which hangs a sash reaching the left thigh. The figure also wears a substantial anklet. A peacock is shown on the right flank of the figure. Light red colour. Ht. 4". (VS I, 78), pl. XIII, 2.

3. Fragmentary torso of a female<sup>1</sup> with a slender waist and broad hips. Right hand resting on the waist and left suspended by the side. The left leg is slightly bent at knee. Traces of skirts are also visible. The figure wears puffed up flowery bangles and an elaborate girdle of three strands from which are suspended over the thighs two rows of bell-like ornaments. Traces are also seen of a sash passing over the waist and the left thigh. Two holes are pierced on the flat back of the plaque. A peacock is shown on the right flank of the figure which is very similar to No. 2. Light red colour. Ht. 3.25". Period II. (VS I, 80), pl. XIII, 3.

4. Lower portion of a standing female figure with a slender waist and broad hips. The left hand supports the girdle and the right hand holds a piece of jewellery or garment decorated with pompons. These are preserved much better on a figurine, probably from the same mould excavated earlier at the Vaiśālī Garh.<sup>2</sup> The figure wears an elaborate girdle of three strands and puffed up flowery bangles which extend to the forearms. A sash-like scarf is seen passing over the waist and the left thigh, traces of another looped sash are also visible above the girdle. The figure wears a diaphanous under-garment of which the lower folds are partly seen. A string of pearls is represented on each side along the legs. Two holes are pierced on the flat back of the plaque. Red colour. Ht. 2.8". Period II. (VS I, 58). Two specimens from the same mould were found together of which the better preserved one is illustrated, pl. XIII, 4.

5. Bust of a female deity with a winged shoulder and elaborate coiffure. The figure wears large disc-shaped ear ornaments, torque, a necklace between her prominent breasts and three puffed up flowery bangles. Her right hand holds the ear ornament of the right side, while her left arm is mutilated below the elbow. There is a hole between the wing and the coiffure probably meant for suspension. An identical figure was found from the previous excavations at Vaiśālī.<sup>3</sup> Red colour. Ht. 2.75". Period Ib. (VS III, 274), pl. XIV B, 1.

6. Head of a Nāga wearing a peaked crown decorated with five serpent hoods with a prominent basal fillet.<sup>4</sup>

<sup>1</sup> Similar terracotta figures were found by Spooner. Cf. *A. S. I., A. R.* 1913-14, pl. XLIII, d.

<sup>2</sup> *A. S. I., A. R.*, 1913-14, pl. XLIII, b.

<sup>3</sup> *Ibid.*, 1913-14, pl. XLIV, g.

<sup>4</sup> On some early tribal coins *nāgamudrā* is formed by a vertical line with a curve on either side, placed on a horizontal line. Cf. *J. N. S. I.* Vol. XVII, pt. II, pl. VI, 28.



## TERRACOTTAS : MISCELLANEOUS FIGURINES

The figure wears *patra-kundalas* in his ears, with circular pellets represented above the *kundalas*. The facial feature is flat and ovoid, bearing resemblance to the faces of the Śuṅga sculptures. Comparable contemporary terracotta figures with serpent hoods have been found at Tamluk and Kauśāmbī.<sup>1</sup> Red colour. Ht. 2". Period Ib. (VS III, 228), pl. XIV, B 2.

7. Broken head of a female figure with bicornate headdress. There is a hole in the centre probably for inserting incense stick. This is a common type of headdress and is found on contemporary terracottas from sites like Kauśāmbī and Ahichchhatrā. Red colour. Ht. 1.4". Period II. (VS III, 233).

### (c) NAIGAMEŚA

Naigameśa is a peculiar type of clay figurine, which occurs in male and female forms at several historical sites like Kumrahar, Ahichchhatrā, Mathurā and Rājghat. The special characteristic of this figure is an animal face with goat-like features and long dangling ears with pierced holes or slit-marks. Generally the mouth is indicated by a deep-cut slit just below a hooked nose. The projecting top-knot on the head is also pierced by one or two holes.<sup>2</sup> Such terracottas are generally found from the Gupta period. But in the earlier specimens of the Kushana period, we find horns just above the ears.

At Vaiśālī only two female goat-headed figures have been found, both from period IV. Of the two specimens the better preserved one is illustrated :—

1. Head and bust of a female figure with a goat-like face, hooked nose, slit mouth, long applied ears with pierced slits and prominent breasts. The broken arms extend obliquely from the shoulders. Traces exist of a projecting hair-crest on the head with a hole probably for suspension. Light red colour. Ht. 2.75". (VSI, 14), pl. XII C, 7.
2. Torso of a female figure with slender waist and broad hips. Head, hands and legs missing. Light red colour. Ht. 2.75". (VS IV, 312).

### (d) MISCELLANEOUS FIGURINES

Among miscellaneous terracotta figurines two heads (Nos. 1 and 8), both belonging to Period II, are noteworthy for their exquisite modelling and finish. An archaic figure with undifferentiated sex (No. 7) also deserves mention on account of its wide distribution over the whole of North India.

Only selected specimens are illustrated :—

1. Head, much worn out, but with an oval face and handsome features. The hair is dressed in a simple style. Light red colour. Ht. 1.5". Period II. (VS II, 140), pl. XV, 1.
2. Bust of a male figure wearing a turban with a protuberance on the left side and elongated ear lobes. Light red colour. Ht. 2.6". Period IV. (VS I, 9), pl. XV, 2.
3. Female head with a thin long face and the eyes impressed with disproportionately large round pupils. The mouth is indicated by a slit. The elongated ears with prominent lobes appear to have been applied. The hair is indicated by vertical incisions and is tied in a top knot. It has a tenon below for fixing into the missing torso. From Period III. Light red colour. Ht. 1.8". (VS I, 82), pl. XV, 3.
4. Crude hand-modelled female head with hair indicated by fine incisions on the forehead and an applied strip at the back with a few vertical incisions representing braids of hair. The nose is indicated by pinching clay. The

<sup>1</sup> *Indian Archaeology*, 1953-54, pl. XI<sub>1</sub>B.

<sup>2</sup> *Ancient India*, No. 4, p. 134.



- eyes are stamped with pupils duly indicated. From Period II. Light red colour. Ht. 1.5". (VS I, 66) pl. XV, 4.
5. Hand-modelled female head with flat face, prominent nose and slit mouth. Eyes are stamped with pupils marked by punched circlets. The head wears heavy ear-ornaments indicated by applique and has a tenon below. From Period II. Grey colour. Ht. 1.5". (VS I, 50), pl. XV, 5.
6. Hand-modelled head of a human figurine representing a flat broad facial type with prominent cheek-bones. Eyes incised and pupils shown by pin-heads. Nose, brows, lips and ears worked up. From Period IV. Light red ware. Ht. 1.7". (VS IV, 337). pl. XV, 6.
7. Crude hand-modelled squatting homo figure. Nose shown by working up the clay between two fingers. From Period IV. Red colour. Ht. 2.4". (VS III, 277), pl. XII C, 8.
8. Female head with hair indicated by finely incised lines and gathered up in a knot towards right and fringed by double pearl-strings on the fore-head. Handsome oval face with full lower lips and eyes indicated as on the Śūṅga and Āndhra sculptures. From Period II. Grey colour. Ht. 2.5". (VS I, 75), pl. XIV A.
9. Worn-out bust of a moulded male figure. Right hand held along the chest. The figure wears head-dress and ear-rings. The flat back of the figure shows numerous thumb impressions. From Period IV. Greyish red colour. Ht. 2.25". (VS IV, 338).
10. Forearm of a human figure wearing two bangles. Fingers shown by incision. From Period II. Greyish red colour. Length 2.5". (VS IV, 354).
11. Forearm of a female figurine wearing six bangles. Fingers shown by incision. From Period II. Red colour. Length 2.5". (VS II, 149).
12. Well-modelled head of Gaṇeśa with impressed lozenge shaped eyes. Three pin holes pricked in the temple. From Period IV. Red ware, silvery primary coat finished with blackish red slip. Length 2". (VS II, 111).

## (ii) *Animals-on-Wheels*

Terracotta animals meant to be mounted on wheels for propelling were common toys in India. Such toy-carts come from a number of North Indian sites like Pāṭaliputra, Sonapur, Kauśāmbī and Rājghat. The specimens from Vaiśālī include ram, bull and elephant.

Only selected specimens are illustrated :—

1. Fragment of an animal with slit mouth, prominent nostrils, eyes shown by punched lozenges and pupils indicated by circlets. A transverse hole runs through the nose for passing the string. Ears broken, but holes are visible indicating the ear passage. Three legs broken, the only extant legs shows a transverse hole for being mounted on wheels. From Period II. Red colour. Length 3.5". (VS III, 255). pl. XVI A, 1.
2. Figurine of a bull probably provided with four transverse holes for wheel axles on the four legs. Three legs broken, the only extant leg shows a transverse hole for being mounted on wheels. A smaller transverse hole runs through the nose for passing a string. The figure has punched eyes of lozenge shape with pupils indicated by circlets, slit mouth, and applique ears. There is a small protuberance at the back, placed in the middle of the saddle. From Period II. Red colour. Length 3.75". (VS I). pl. XVI A, 2.
3. Toy-cart representing the elongated head of a ram with a transverse hole on the back for inserting a stick to which a string was tied for pulling. Horns indicated by bold incisions and eyes by diamond-shaped punches with a central hole for the pupil. The body is covered with stamped leaves and rosettes. A large rosette resembling a spoked wheel with a central pellet is stamped on the forehead and a smaller one between the eyes. From Period II. Greyish red fabric with traces of light red slip. (VS II, 164), pl. XVI B, 3.
4. Toy-cart representing the well-modelled head of a bull with a transverse hole on the back for inserting a stick. A smaller transverse hole runs through the nose for passing a string. The head has prominent nostrils, slit mouth



## TERRACOTTAS : ANIMAL FIGURINES

and punched lozenge-shaped eyes, and well-modelled ears with the ear passage indicated by holes. A hole is also punched between the mutilated horns. The figure is very elaborately decorated with stamped leaves. From Period II. Red colour. Length 4.25". (VS I, 62) pl. XVI B, 4.

5. Fragment of a toy-cart representing an animal decorated with elaborate stamped leaves. Only the hind part with a transverse hole is preserved. Traces of transverse hole on the back are also visible. From Period II. Length 2". (VS III, 270).

6. Fragment of a toy cart representing a mutilated elephant with trappings, crown and trunk decorated with incised lines. Three legs broken, only one leg which is partly preserved shows a transverse hole. From Period III. Red colour. Length 4.3". (VS III, 231).

### (iii) *Animal Figurines*

A large number of terracotta animal figurines, mostly fragmentary and representing bull, dog, elephant, horse and serpent come from the Vaiśālī excavation. Hand-modelled figurines of dogs, and stylized serpents with hoods are the earliest specimens attributable to Period Ib. Serpent figurines similar to Nos. 2-4 and representing probably Nāgas (serpent-deities) had a wide vogue and are known from contemporary layers of numerous North Indian sites like Pāṭaliputra, Sonapur, Chandraketurgh, Rajgir and Ujjain.

Only selected specimens are illustrated :—

1. Hand-modelled crude Nāga figurine with eyes indicated by irregularly pricked holes. From Period Ib. Imperfectly baked greyish buff fabric. Length 1.9". (VSC, 35), pl. XVII A, 1.

2. Fragmentary head of a Nāga figurine with eyes indicated by applied discs. Parallel incised lines indicate the rings on the body of the serpent. From Period Ib. Red colour. Length 2". (VSC, 13), pl. XVII A, 2.

3. Fragment of a Nāga figurine with hood broken. Triangles filled with criss-cross incisions and parallel incised lines with a row of punched circlets indicate the rings and scales on the body of the serpent. The lower portion of the figure is finished in the form of a saddle. From Period Ib. Red colour. Length 3.5". (VS IV, 349), pl. XVII A, 3.

4. Fragment of a Nāga figurine with hood broken. The body is decorated with triangles incised with criss-cross pattern, parallel lines and punched circlets. From Period II. Red colour. Length 2.74". (VS III, 264), pl. XVII A, 4.

5. Fragment of an elegantly modelled horse figurine. The head-stall consists of cheek-straps and front and nose bands, executed in applique. The plume is shown by oblique incisions. The eyes are indicated by punched circlets. The ears are prominently shown. From Period Ib. Red fabric with bright red slip. Length 4". (VS III, 261), pl. XVII B, 5.

6. Crude head of an elephant figurine stamped with a leaf pattern and rosette with intersecting line containing pellets in each compartment. The gullet below the tiny applied ears is also stamped with a leaf design. From Period II. Light red colour. Length 2.5". (VS II, 135), pl. XVII C, 6.

7. Finely modelled hollow elephant figure with eyes punched and the lower portion of the temple stamped with criss-cross pattern. The ears are decorated with tasselled ornament and the neck with a heavy torque of the *kshupra* pattern. A headless rider wearing tight trousers and a long coat is represented reclining on the back of the elephant. The front part of the rider is represented in relief, while the hind part is indicated in applique. Similar elephant figures are known from other sites like Kauśāmbī, Pāṭaliputra and Rājghat. From Period II. Buff fabric with a polished dark red slip. Ht. 3.5". (VS II, 159), pl. XVII D, 7.

8. Dog figurine with a rich coat of hair shown by incisions. A transverse hole runs through the head. Legs



are not clearly defined and the muzzle is mutilated. From Period Ib. Red colour. Length 3". (VS III, 270), pl. XVIII A, 8.

9. Dog figurine similar to above. Short tail prominently indicated. Head missing. From Period Ib. Greyish fabric. Length 3". (VSC 42), pl. XVIII A, 9.

10. Moulded elephant figurine of good workmanship. Hind legs partly mutilated. Unstratified. Light red fabric. Length 2.8". (VS I), pl. XVIII B, 10.

11. Mutilated figurine intended to represent perhaps elephant. Extant part of trunk decorated with incised criss-cross. Trappings indicated by oblique incisions. From Period IV. Greyish buff fabric. Length 4.3". (VS III 231), pl. XVIII B, 11.

12. Crude head of a horse with the eyes indicated by punched circlets and manes by parallel incisions. A transverse hole runs through the nose for passing a string. From Period III. Red colour. Length 2". (VS IV, 339), pl. XVIII B, 12.

13. Fragmentary head of a bull with the eye pupil indicated by punched circlets and the eyelashes by a stamped leaf. The figure has a slit mouth and prominent nostrils. A strap is shown across the muzzle by pricked incisions. From Period Ib. Red colour. Length 2". (VS III, 258), pl. XVIII B, 13.

14. Fragment of an animal figurine with eyes indicated by punched circlets and trappings by incised lines and circlets. Tail, legs and muzzle broken. From Period IV. Red colour. Length 3.75". (VS III, 263), pl. XVIII B, 14.

15. Fragment of an animal figurine with muzzle, legs and tail broken. Two bands of circlets punched round the neck, and chevrons punched on the crown. Eyes indicated by punched circlets. From Period II. Red colour. Length 4". (VS III, 218), pl. XVIII B, 15.

16. Elephant figurine with impressed lozenges for eyes. Leaves stamped on the forehead and mutilated trunk. Two wheel-shaped rosettes stamped over the crown. Lower part of the trunk and feet broken. From Period II. Light red colour. (VS IV, 329).

17. Elephant figurine without trappings or decoration. Trunk, ears and hind legs mutilated. From Period IV. Light red colour. Length 2.75". (VS IV, 353).

18. Mutilated animal figurine with trappings and collar punched with circlets. From Period II. Red slip. (VS IV, 319).

#### (iv) *Seals and Sealings*

Numerous terracotta seals and sealings including some of great cultural significance were found from Vaisali in the earlier excavations. From this excavation only four inscribed sealings and one uninscribed seal-mould have been unearthed, all belonging to Period IV.

1. Circular sealing showing a *stupa*-like design over railing in the upper field and the legend *Sresthi-nigamasya* [(seal) of the guild of Bankers] in the lower field in the Gupta Brāhmī script, with string marks on the reverse. Spooner had also found 16 similar sealings.<sup>1</sup> Well-burnt greyish black fabric. .75" in diameter. (VS I, 32), pl. XIX A, 1.

2. Broken oval sealing with the legend *Varatasya* in the Gupta Brāhmī script. Half burnt grey fabric. (VS IV, 360), pl. XIX B, 2.

3. Roughly circular sealing showing *śrīvatsa* symbol in the upper field and the legend *Bofasya* in the lower field in the Gupta Brāhmī script with string marks on the reverse. Half burnt greyish fabric. Size .9" in diameter. (VS IV, 361), pl. XIX B, 3.

<sup>1</sup> A. S. I., A. R., 1913-14, p. 122.



## TERRACOTTAS : MISCELLANEOUS OBJECTS

4. Lenticular sealing showing bull facing in the upper field and the legend *Dhruvanandih* in the lower field in the Gupta Brāhmī script, with string marks on the reverse. Well-burnt red fabric. Size 1.75" × 1.2". (VS IV, 359), pl. XIX B, 4.

5. A lenticular seal-mould showing a triangle-headed standard with two transverse strokes. The body is relieved with minute circlets. Well-burnt red fabric. Size 1.75" × 1". (VS II, 136), pl. XIX B, 5.

### (v) Miscellaneous Objects

#### A. (a) EAR-ORNAMENTS

Only four terracotta ear-ornaments resembling games-heads having a cylindrical stalk, conical terminal and depressed end have been found. In three cases the terminals are decorated with neat spirals. These belong to Period II. Similar ear-ornaments have been found from other excavated sites, such as Pāṭaliputra<sup>1</sup>, Sonapur<sup>2</sup>, Ahichchhatrā, Rājghat and Śiśupalgarh<sup>3</sup>. Such ear-ornaments also occur on early Indian sculptures, such as the Didarganj (Pāṭaliputra) Yakshi<sup>4</sup>, and on figures from Amarāvati<sup>5</sup> and Mathurā<sup>6</sup>.

1. Fragment of an ear-ornament with plain cylindrical stalk and plain pointed conical terminal. The lower portion is missing. Polished light red fabric. (VS III, 251), pl. XIX C, 1.

2. An ear ornament of cylindrical stalk of which the conical terminal and the depressed end are decorated with neat spirals. Buff fabric. (VS II, 165), pl. XIX C, 2.

3. Similar, but of black polished grey fabric. (VS III, 151), pl. XIX C, 3.

4. Similar to Nos. 2-3 but the ends also show stipple design. (VS I, 50), pl. XIX C, 4.

#### (b) WHEELS

A fair number of terracotta toy wheels has been found in the excavation. Some are plain, while others are decorated with stylized representations of spokes and nails, the latter indicated by pellets.

The following selected specimens are illustrated :—

#### Pl. XX A

1. Double convex wheel impressed with designs of nails and spokes joined to a prominent hub. Same design represented on both sides. From Period Ib. Red fabric. (VS II, 179).

2. Plano-convex wheel with impressed spokes on one side. Light red fabric. From Period IV. (VS III, 230).

3. Double convex wheel impressed with designs of spokes and nails on both sides. On one side the spokes are closer and more numerous. Greyish red fabric. From Period IV. (VS III, 232).

<sup>1</sup> *Indian Archaeology*, 1955-56, p. 22.

<sup>2</sup> *Ibid.*, 1956-57, pl. XXIII.

<sup>3</sup> *Ancient India*, No. 5, p. 90.

<sup>4</sup> L. Bachhofer, *Early Indian Sculpture* (New York, 1927) I, p. 19.

<sup>5</sup> C. Sivaramamurti, 'Amaravati Sculptures in the Madras Government Museum,' *Bulletin of the Madras Government Museum* (Madras, 1942), pp. 108-110, pl. VIII, 3.

<sup>6</sup> V. S. Agrawala, *Handbook of the Sculptures in the Curzon Museum of Archaeology, Muttra* (Allahabad, 1939), pl. XI, 24; pl. XIV, 28; pl. XVI, 32.



4. Double convex wheel. The two faces of the hub were rubbed smooth and the wheel was subsequently used as a playing disc. Red fabric. From Period IV. (VS III, 216).
5. Plain wheel with a prominent hub. Light red fabric. From Period II. (VS II, 142).
6. Plano—convex wheel. Red fabric with deep red slip. From Period IV. (VS III, 244).

(c) SKIN-RUBBER

Only one solid barrel-shaped skin-rubber has been found from Period II, with cut designs of little triangles. There are a number of similar specimens in the Vaiśālī Museum. Diameter 2.2". (VS II, 130), pl. XX B.

(d) MOULD

Only one circular terracotta mould showing a deeply incised design of four concentric circle has been unearthed from this excavation, belonging to Period II. Diameter 3.25". (VS II, 154), pl. XX C.

B. COINS

Only three copper coins have been found in this excavation, of which two are uninscribed cast, while the third is punch-marked. The two cast coins belong to a new type. On the obverse is seen elephant standing to left on a ladder-like symbol facing a triangle-headed standard; the better preserved specimen also shows the Ujjain symbol. This may be compared to the obverse design of varieties *f*, *g*, *i* and *j* published by Allan.<sup>1</sup> The reverse of our cast coins shows a lion with curly tail facing a tree in railing; the better preserved specimen also has a *svastika* symbol above the lion, which is partly analogous to the obverse of variety *c* of Allan. The cast coins with elephant on one side and the lion on the other are hitherto unpublished and bring to light a new variety. These coins come from Periods II and III of cutting VS I.

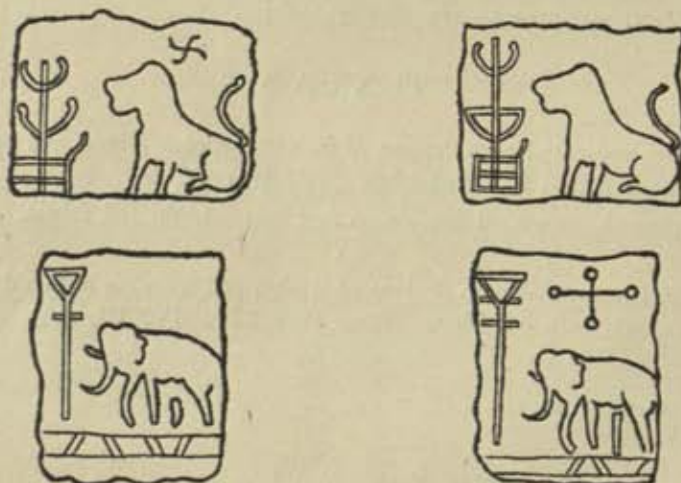


FIG. 21. Uninscribed Cast copper coins

<sup>1</sup> J. Allan: *Catalogue of Ancient Indian coins in the British Museum*, pp. 86-88.



## IVORY, BONE AND SHELL OBJECTS

The Copper punch-marked coin which comes from an Ash-pit of Period III of VS I is obviously out of context and is a survival. It is generally similar to the type published by Allan<sup>1</sup> and clearly shows four out of the five familiar obverse symbols, viz., solar symbol, six-armed symbol (*śaḍāra-chakra*) with an arrow-head, conch, and a symbol consisting of a circle with a hook, and faint traces of a fifth symbol.

### (i) *Cast Uninscribed* (fig. 21)

1. Obv : Tree in railing on left, lion standing to left, *śaṣṭika* above lion.  
Rev : Triangle-headed standard on left, elephant standing to left.  
Corroded thin rectangular, size .5" × .4". Wt. 1.24 grm. (VS I, 1).
2. Obv : Tree in railing on left, lion standing to left, other symbols not clear.  
Rev. : Triangle-headed standard on left, elephant standing to left on a ladder-like symbol, Ujjain symbol above elephant.  
Corroded thin rectangular, size .5" × .4". Wt. 1.01 grm. (VS. I, 2).

### (ii) *Copper Punch-marked*

3. Obv : Solar symbol, six-armed symbol with an arrow head, conch, circular symbol with a hook, faint traces of another symbol.  
Rev. : Traces of several symbols including conch and solar symbols.  
Well-preserved, thick and rectangular. Size .8" × .7". Wt. 15.583 grm. (VS. I, 3).

## C. IVORY, BONE AND SHELL OBJECTS

### (a) IVORY

#### (i) *Die*

Die is one of the oldest and most popular games of India. Oblong dice of pottery, bone or ivory, marked with numbers one to four on the four faces are common finds on ancient Indian sites of the proto-historic and historic periods. This excavation has, however, yielded a unique type of die inasmuch as numbers one and two are conspicuous by absence and the mark of number four is placed opposite four and that of three opposite three. It is a well-preserved oblong ivory die of cubical section with the marks indicated by dots within circles and belongs to Period II. Length 3" (VS II, 183), pl. XXI, 1.

#### (ii) *Antimony-Rod*

Only a broken ivory antimony rod with a clubbed end is found belonging to Period Ib. Length 1.6". (VS II, 144), pl. XXI, 12.

<sup>1</sup> *Ibid*, p. 7.



(iii) *Handle*

Only a fragment of a tubular ivory handle with incised parallel rings and a flat base was found from Period II. (VS IV, 347), pl. XXII A, 5.

(b) BONE

(i) *Bone-Points*

Nine bone-points have been found from Vaiśālī, all belonging to Period I. There are four varieties of these, viz. (a) with one end pointed, (b) with both ends pointed, (c) with one end pointed and the other end tanged, and (d) with tubular holes or hollow sockets for the shaft tenon.

The bone-points, which have been variously described as arrow-heads, styli, points and bobbins, are known from many proto-historic and early historic sites of North and Central India and the Deccan and are characteristic finds associated with the early cultures of these regions. These, however, have a very wide range in time and are known from Mohenjo-daro, Chanhudaro and also from Navdatoli-Maheshwar where they occur from the proto-historic times (c. 1200 B.C.), to the end of the 5th century A. D. At Hastināpura they are associated with the Painted Grey Ware, but on most of the North Indian sites extending from Bangarh in Bengal to Taxila in the Punjab they are usually found in association with the N. B. P. Ware. Largest collections of these were found at Nasik and Ujjain which appear to have been factory-sites.

The bone-points with pointed ends appear to have been used as arrow-heads which is indicated by a specimen found at Ujjain, stained with the blood of a bird. It is interesting to note that the *Arthashastra*<sup>1</sup> mentions arrow-heads of bone for rending.

The following specimens are illustrated:—

1. A bone-point with 1" long socket-hole at the back for the shaft tenon. Roughly made. Length 3.3". (VSC, 7), pl. XXI, 2.
2. A well-worked but blunted bone-point with the other end broken. As it has a blunt point, it might have been used as a stylus. Length 3.5". (VSC, 37) pl. XXI, 3.
3. A roughly worked double-ended bone-point. Both the ends are broken. Length 2.8". (VSC, 30), pl. XXI, 4.
4. A well-worked bone-point with a short tubular hole for the shaft tenon. Length 2.7". (VSC, 29), pl. XXI, 5.
5. A tanged bone-point. The tang is roughly fashioned. Length 3.5". (VS I, 26), pl. XXI, 6.
6. A double-ended roughly fashioned bone-point. Length 2.65". (VS III, 221), pl. XXI, 7.
7. A double-ended bone-point, roughly made with a thick body. Length 2.35" (VSC, 221 A), pl. XXI, 8.
8. A roughly worked bone-point, retouched at one of the tips. The other end is broken. Length 2.3". (VS II, 178) pl. XXI, 9.

<sup>1</sup> *Arthashastra*, Chap. XVIII, 2.



## BEADS

9. A well-worked bone-point with a short tubular hole for the shaft tenon. Length 1.8". (VS II, 144) pl. XXI, 10.

10. A well-worked blunted point with a short tubular hole. It may have been used for some other purpose. Length 1.3". (VSC, 40) pl. XXI, 11.

### (ii) *Amulet*

A crescentic bone-amulet or a tooth-pick, 1.25 inches long, with a point at one end and a hole for suspension at the other end, was found from a deposit of Period Ib. (VS II, 150), pl. XXI, 13.

### (iii) *Disc*

The excavation has yielded a roughly fashioned circular disc incised with *svastika* symbol on one side, from Period II. Diameter 1.75". (VS II, 157), pl. XXII A, 4.

## (c) SHELL

### (i) *Bangles*

The excavation has yielded fragments of nine shell bangles, all from Period IV.

A few selected specimens are illustrated :—

1. Fragment of a large shell bangle, decorated with two grooves on the outer face. Diameter 3.5". (VS I, 91), pl. XXII A, 1.

2. Fragment of a well-finished shell bangle with concave outer surface. Diameter 2.25". (VS I, 35), pl. XXII A, 2.

3. Fragment of an unshapely shell bangle with a groove in the middle of the outer face. Diameter 1.5". (VS II, 188), pl. XXII A, 3.

## D. BEADS

The excavation yielded a total of ninety-three beads, distributed periodwise as follows :— Period Ia two specimens; Period Ib thirty-seven; Period II eighteen; Period III fifteen; and Period IV twenty-one. Terracotta beads were found in all periods and were the only finds of this class from Period Ia.

The material of which the beads are made comprises agate, amethyst, carnelian, crystal and topaz among semi-precious stones, besides soap-stone, faience, glass, shell and terracotta. Among semi-precious stones agate and carnelian seem to be favourite materials. Glass specimens come from all periods except Ia, and are distributed as follows : Period Ib six specimens; Period II eight; Period III two; Period IV two. The material is either translucent or opaque glass and the range of colour is limited. The more common colours are navy blue, red, black and light green. Period Ib appears to be the richest period for bead manufacture when glass was introduced and beads were made also of shell and numerous varieties of semi-precious stones including crystal and topaz.



Table showing periodwise distribution of beads classified according to their material

Material	Period Ia	Ib	II	III	IV	Total
Amethyst .. ..					I	I
Carnelian .. ..		4				4
Crystal .. ..		I				I
Agate .. ..		3				3
Faience .. ..				I		I
Glass .. ..		6	8	2	2	18
Shell .. ..		4				4
Soap-stone .. ..					I	I
Topaz .. ..		I				I
Terracotta .. ..	2	18	10	12	17	59
Total .. ..	2	37	18	15	21	93

The following select examples are illustrated :—

## Pl. XXIV

1. Glass : opaque black, long cylindrical, fragmentary. From Period Ib, (VS II).
2. Agate, discoid spacer bead. From Period Ib. (VSC, 28).
3. Glass : opaque black, long barrel-shaped. From Period Ib. (VS II, 175).
4. Glass : opaque black, barrel-shaped. From Period Ib, (VSC 27).
5. Glass : opaque navy blue, globular. From Period II (VSI 128).
6. Agate : globular. From Period Ib. (VSC, 9).
7. Granite : spherical. From Period IV. (VS II, 239).
8. Drawn cane glass, barrel shaped, black opaque decorated with spiral design in white. From Period Ib. (VS II, 177).
9. Carnelian : flat trapezoidal, etched with stripes. From Period Ib. (VS III, 273).
10. Carnelian : barrel-shaped. From Period Ib. (VSC, 10).
11. Glass : opaque black, small barrel-shaped. From Period II (VSC, 27).
12. Carnelian : oval leech-shaped. From Period Ib, (VSC, 11).
13. Topaz : hexagonal barrel-shaped. From Period Ib, (VSC, 17).
14. Glass : cherry red colour, rectangular in section. From Period II. (VS II, 122).
15. Carnelian : dagger-shaped pendant bead. From Period Ib. (VSC, 12).
16. Crystal : biconical pentagonal. From Period Ib. (VS II, 269).
17. Agate : barrel-shaped. From Period Ib. (VSC, 43).
18. Shell : barrel-shaped, fragmentary, From Period Ib. (VSC, 15).



## STONE OBJECTS

19. Shell : barrel-shaped. From Period Ib. (VS II, 174).
20. Marble stone : spherical. From Period Ib. (VSC, 23).
21. Shell : rough spherical. From Period Ib. (VSC, 34).
22. Glass : cylindrical colourless but iridescent. From Period II. (VS II, 158).
23. Glass : iridescent, large hexagonal barrel-shaped. From Period II. (VS II, 138).
24. Terracotta : Large cylindrical. From Period IV (VS II, 116).
25. Terracotta : spherical. From Period IV. (VS I, 19).
26. Terracotta : *ghaṭa*-shaped, broken. From Period IV (VS I, 27).
27. Terracotta : *ghaṭa*-shaped with a collar. From Period II (VS II, 171).
28. Terracotta : plano-convex, circular with a collar. From Period II. (VS II, 171).
29. Terracotta : *ghaṭa*-shaped with a globular body. From Period I. (VSC, 27).
30. Terracotta : *ghaṭa*-shaped but with a more globular body and a rounded collar. From Period Ib. (VS III, 22).
31. Terracotta : *ghaṭa*-shaped with a globular body. From Period Ib. (VSC, 8).

## E. STONE-OBJECTS

### (i) Votive Stone Disc and Plaque (pl. XXIII)

1. Votive discs and ring-stones are known from several historic sites of North India including Taxilā, Rupa<sup>1</sup>, Sankisā, Mathurā, Rājghat, Kauśāmbī and Murtaziganj<sup>2</sup> (Pāṭaliputra), the last having yielded a large hoard of them.



FIG. 22. Steatite Votive disc

<sup>1</sup> *Lalita Kala*, Nos. 1-2, pl. XLVI, 13.

<sup>2</sup> *J. B. R. Society*, Vol. XXXVII (1951), pp. 178 ff. and plates.



The votive disc of greyish white steatite found in this excavation is elaborately decorated on the convex side with representations of the Mother Goddess, winged lion, *pipal* (*ficus religiosa*) tree and floral designs.

Within the outer border of cable design is carved a concentric register of floral pattern, resembling the honey-suckle motif. The principal design placed in a broad concentric band within this floral border consists of two Mother Goddess figurines and two winged lions, each separated from the other by a conventional tree motif resembling the *pipal* tree (*ficus religiosa*). The inner circle shows a mutilated figure (of a man or elephant?) with a thick leg and a part of the body, the rest being chipped off. This votive disc is unique in many respects including the way the Mother Goddess is represented. In one case she is figured as draped in a heavy skirt, while her head is encircled by a double row of pellets indicating an elaborate headdress. In the other case she has raised curls with well-delineated flat face and wears *patra-kuṇḍalas* and a heavy feathery skirt with a curious projection resembling a bird's wing. In both cases the figure faces front with the upper body slim and bare and one of the hands raised. The flat reverse is carved with animal graffiti of which all but one are shallow. The deeper one shows the hind legs of a mutilated quadruped with a curled tail. From Period II. Diameter 3.5". (VS II, 167), pl. XXIII, fig. 22.

2. A rectangular plaque of red jasper bearing an interesting representation of the Mother Goddess in relief has also been picked up from the surface of the Vaiśālī Garh site. In this the Mother Goddess stands in the frontal pose with the feet clumsily disposed as on the Bharhut sculptures. She has a broad round face with large blank eyes and her hair falls in a braid on the proper left secured by a clasp resembling *nāga-mudrā*. She wears large *patra-kuṇḍalas* and a series of bangles and is draped in an undergarment the folds of which are schematically represented by parallel curves. She carries lotus flower in the right hand and a scarf in the left hand and probably represents an early form of *Srīdevī* when she was yet to be differentiated from the Mother Goddess. Stylistically it has affinities with the Śuṅga sculptures at Bharhut and with the early moulded terracotta figurines of Period Ib found at this site (above, p. 52, pl. XIII) Size 2.1" × 1.6", pl. XXIII C.

#### (ii) *Weights of Red Jasper*

At Vaiśālī well-polished cylindrical stone weights are common and a large collection of these, picked up from the surface, can be seen in the Vaiśālī Museum. Such weights are known from other early historic sites of North India like Pāṭaliputra, Kauśāmbī, Rājghat and Ujjain and are commonly found in association with the N. B. P. Ware. From the excavation, four jasper weights have been found. One of them comes from VSC (Period Ib) and the remaining from VS II and VS III (Period III). They are all cylindrical and vary in height from .4 to .5 inches and in diameter from .6 to .9 inches and in weight from 5.35 to 13.18 grammes, pl. XXIII B.

#### (iii) *Neolithic Stone Celt*

Polished stone celts are known from numerous sites in India and quite a few have been recently reported from excavations in Eastern India from such sites as Sonapur, Tamluk, Jaugada and Siśupālgarh. At Vaiśālī a celt of black basalt has been found from Period II. This celt is well-polished but the edge is blunt. How this celt was encountered in this late Period can only be sur-



## METAL OBJECTS

mised. It is possible that such weapons survived from the Neolithic and Chalcolithic Ages and may have continued in use for some votive or religious purpose or merely as an object of curiosity or sentimental value. Length 2.25". (VS II, 190) pl. XXIII D, fig. 23.

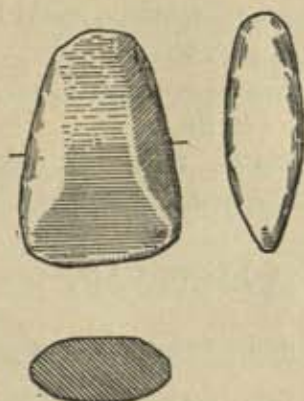


FIG. 23. *Neolithic Celt*

### F. METAL-OBJECTS (pl. XXV)

Metal is represented by only objects of iron and copper in this excavation. Iron has been found from all levels, but copper has been recovered largely from Period IV.

#### (a) IRON OBJECTS

Of a fair number of iron nails unearthed in the excavation only three are illustrated here. The remaining objects include an interesting carpenter's adze (pl. XXV, 1, fig. 24) which is similar to an adze from Bhir Mound (Taxila)<sup>1</sup>, a large knife and lance-heads with or without tang.

Only selected specimens are illustrated:—

#### Pl. XXV

1. Carpenter's adze with a thin long top and a thick sharply tapering blade. From Period II. Compare a similar adze from Bhir Mound, Taxila. Length 7". (VS II, 104), fig. 24.

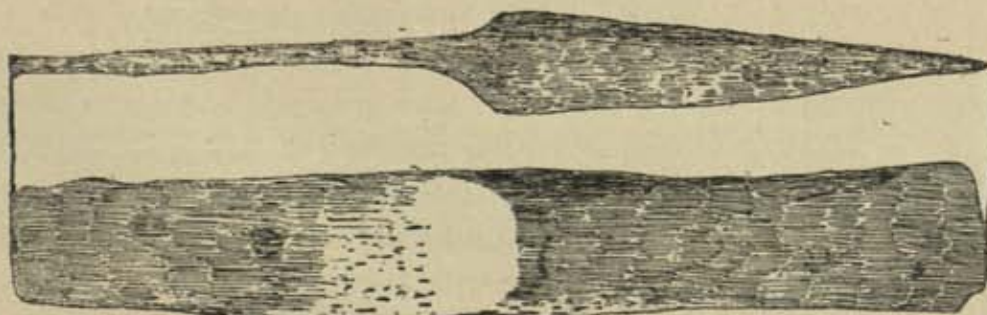


FIG. 24. *Carpenter's adze*

<sup>1</sup> J. Marshall: *Taxila*, Vol. III, pl. 166, No. 113.



2. Large knife with tang incompletely preserved. Period Ia. Length 8.5". (VS 5).
3. Tanged lance-head. Period II. Length 5.5" (VS IV, 306).
4. Nail of circular section with a flat head. Pointed end broken. From Period II. Length 2.75". (VS II, 108).
5. Nail of circular section with a knob head. From Period II. Length 2.7". (VS II, 107).
6. Lance head. Period Ia. Length 4.5" (VSC, 48).
7. Fragment of a tanged blade of a large knife. The tang is complete, but of the knife blade only a tiny bit has survived. From Period II. Length 3". (VS III, 201).
8. Fragment of a blade. From Period Ib. Length 3". (VSC, 4).
9. Long nail of roughly circular section with a knob head. From Period II. Length 7.5". (VS II, 101).

#### (b) COPPER OBJECTS

Three specimens of copper antimony-rod with clubbed ends have been found in this excavation, all belonging to Period IV.

#### Pl. XXV

10. A copper antimony-rod with clubbed pointed ends. Length 4.25". (VS III, 205).
11. A copper antimony-rod with clubbed ends. Length 4.5". (VS II, 103).
12. A large copper antimony-rod with clubbed ends. Length 5.25" (VS IV, 303).



## APPENDIX

### ANIMAL-REMAINS

#### *Skull and Skeleton of an Indian Hyaena*<sup>1</sup> (pls. IV and XXII B)

This is the first complete skeleton of an Indian hyaena to be exhumed from an excavated site. The skeletal remains are fairly well-preserved and complete and come from the stratified deposits of Vaiśālī-Chak Rāmdās, assignable to *circa* 500 B. C. The skeleton measures 935 m.m. of which 160 m.m. is covered by the skull alone. The cranial constituents are otherwise intact except a little rupture in the orbito-temporal region of the left side of the skull. Besides this, the post-cranial osteology reveals an atlas vertebra attached to the skull itself. An axis vertebra is present, in addition to eight cervical vertebrae with long slender and backwardly sloping spines; nine thoracic vertebrae with metapophyses and anapophyses; eight lumbar vertebrae with transverse processes and long neural spines; three sacral vertebrae, united together; and a solitary caudal vertebra. The remaining skeletal remains consist of twenty-two thoracic ribs with complete heads; seven broken pieces of ribs; a damaged pectoral girdle with a humerus bone and a pelvic girdle (Ilium) with a part of femur bone. In view of the extensive modification of the upper carnassial it is estimated that the animal is full grown ranging between  $2\frac{1}{2}$  and 3 years *in age*. The upper molar is reduced to a thin strip transversely placed and sharp on inner sides offering an adaptation to a carrion feeder and bone crushing suggesting that the animal was a scavenger. The enormously dilated pelvis gives an impression that the individual was of *female sex*. The Zoo-geography of this species covers Central Africa and South-East Asia. The cranial peculiarities which differentiate it from the modern hyaena are :—

1. Broad skulled and shortened zygoma.
2. Large coronoid process of the mandible.
3. Enlarged fourth premolar tooth with protocone and rudimentary ectostyle, as a saber tooth adaptation.
4. Weak mastoid process and orbito-temporal confluence.
5. A tympanic bulla without rudimentary internal septum.
6. Strong jugal and the presence of Jacobson's organ.
7. The upper carnassial possessing three outer cusps and an inner cusp.
8. Mandibular suspensorium occurring along with glenoid cavity.
9. The condylar foramen located behind the foramen lacerum posterius.
10. Dental formula is :— $i\ 3/3; c\ 1/1; p\ 4/3; m\ 1/1$ .

It is distinguished by an additional premolar in the upper jaw.

The skull measures 160 m.m. as occipito-maxillary length and 90 m.m. as Zygomatic width.

<sup>1</sup> Contributed by Shri Jagdish Prasad, Lecturer in Zoology, Government Hamidia College, Bhopal.



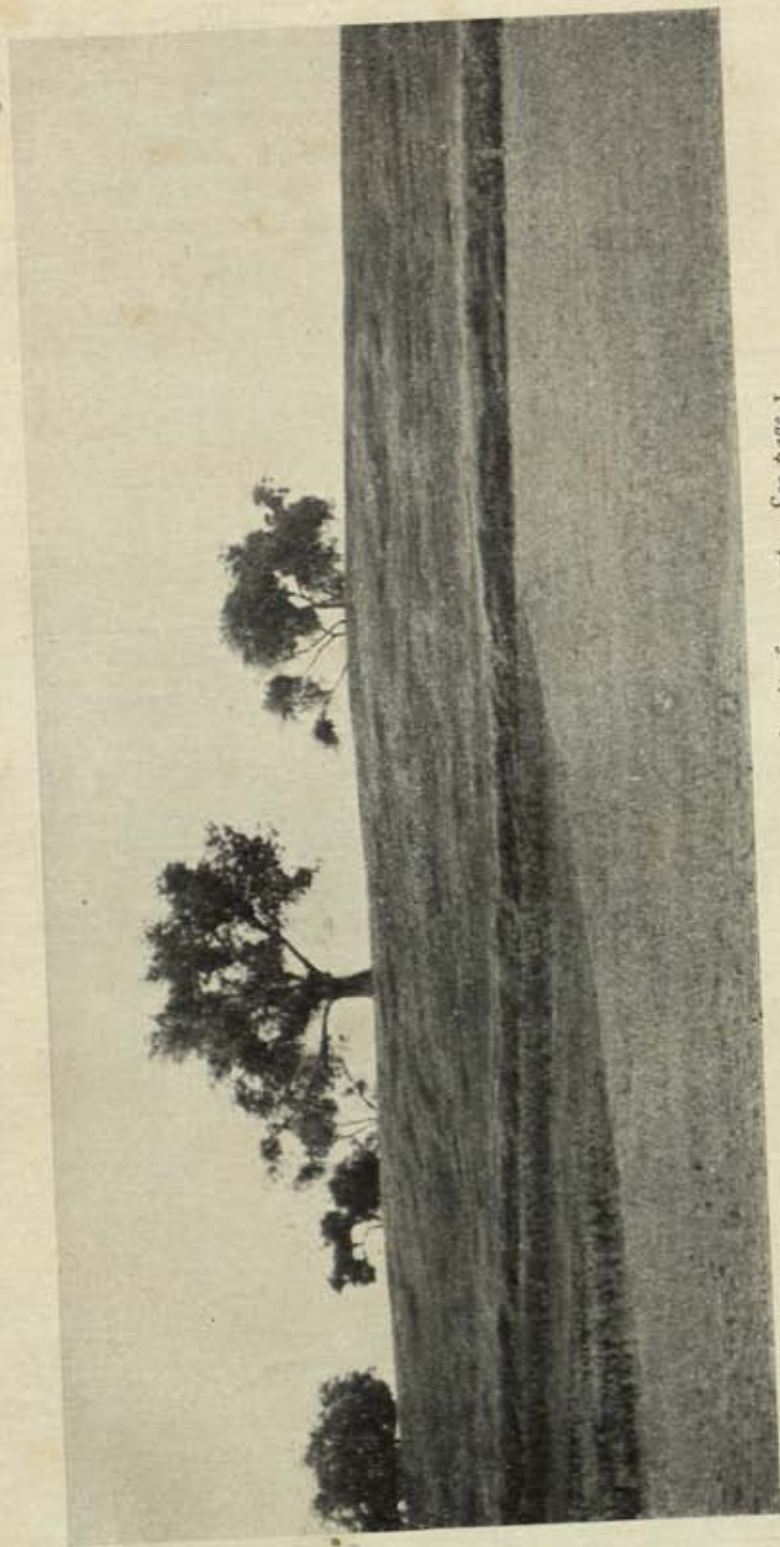
It is 110 m.m. deep from the frontoparietal shield to the lower margin of the mandibles. The skull retains the cranium and the mandibular ramii are closely adpressed to it.

The extensive modifications of the upper carnassial in having a definite protocone and a rudimentary ectostyle exhibit a Saber tooth adaptation. In addition to this, the upper carnassial bears three outer cusps and an inner cusp in contrast to the two outer cusps and one weak talon of the lower carnassial. These modifications and other differences in the architecture and disposition of the skull bones reveal that this species is a transitory phase of phylogeny. The fact is that contemporary hyaena like the one in question existed as a transitional form to account for the admixture of features common to civet and hyaena, prior to the final descent of recent hyaena. The persistence of the Saber tooth adaptations in the transitional forms is a legacy of the forerunners by way of reversion to atavistic traits.

My sincere thanks are due to Dr. Ravi Prakash Mathur, Professor of Zoology, Government Hamidia College, Bhopal for his kind guidance.

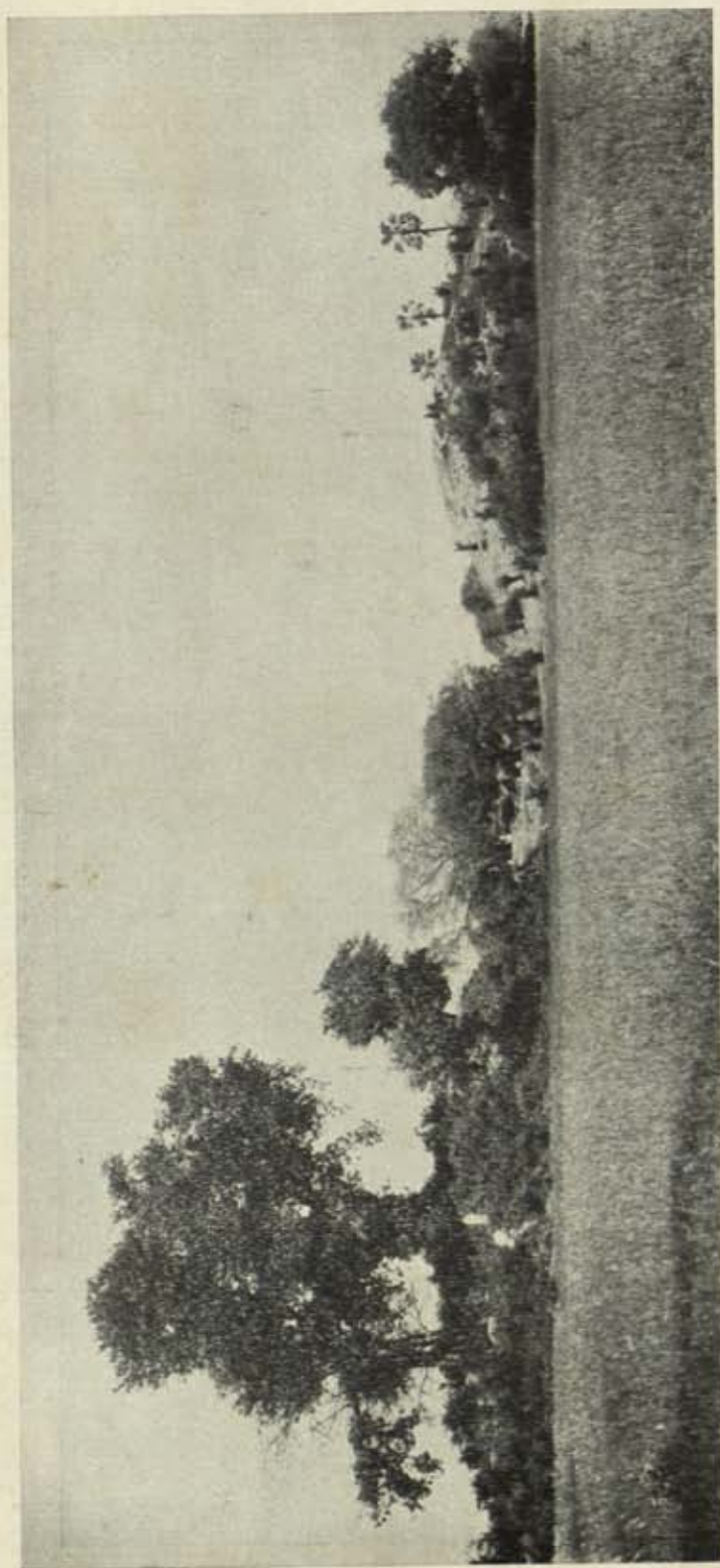






*General view of the Vaisali Garb site from east. See page 1*





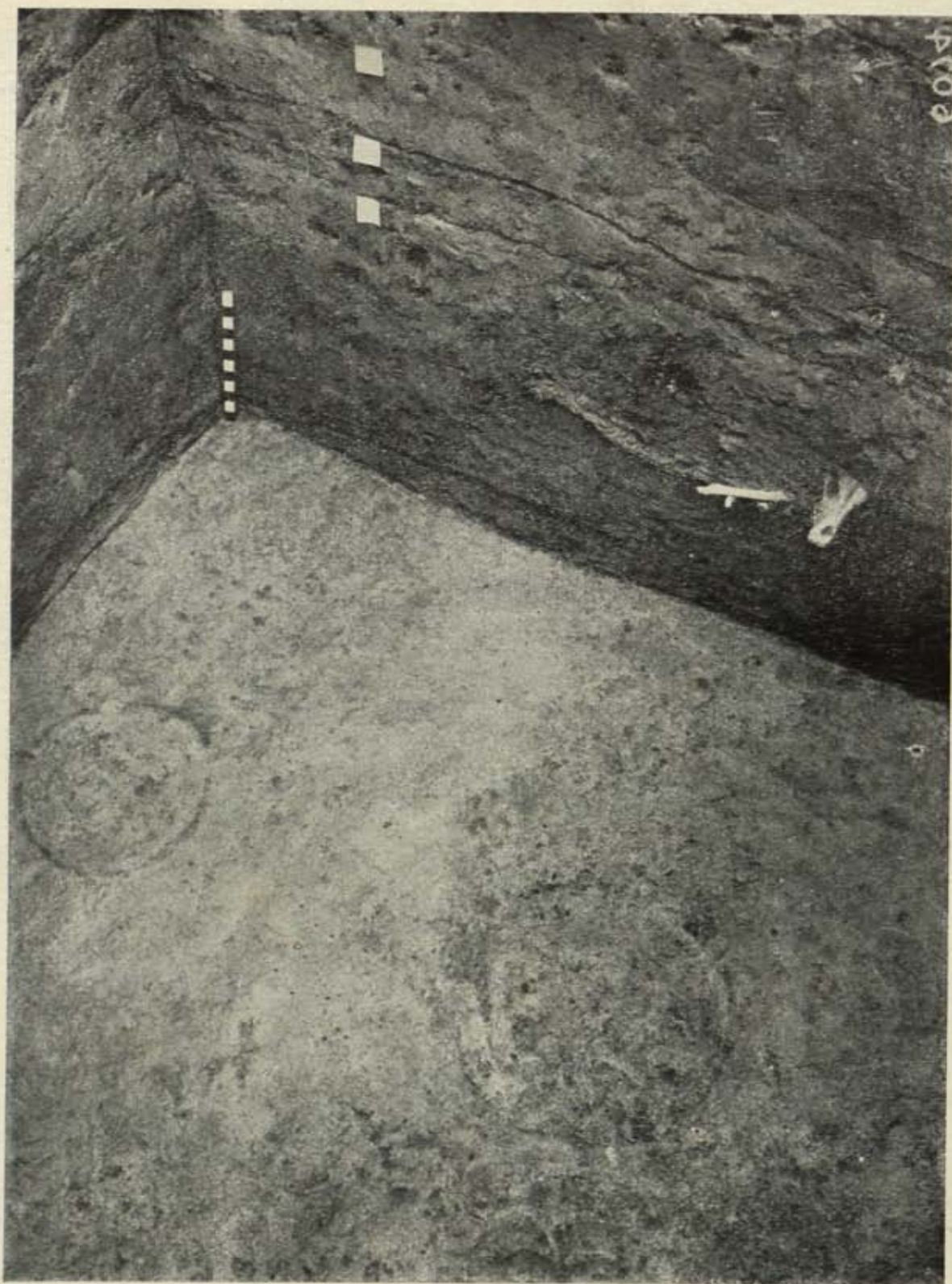
*Twin earthen stupas now known as Bhimsen-kā-pallā. See page 2*





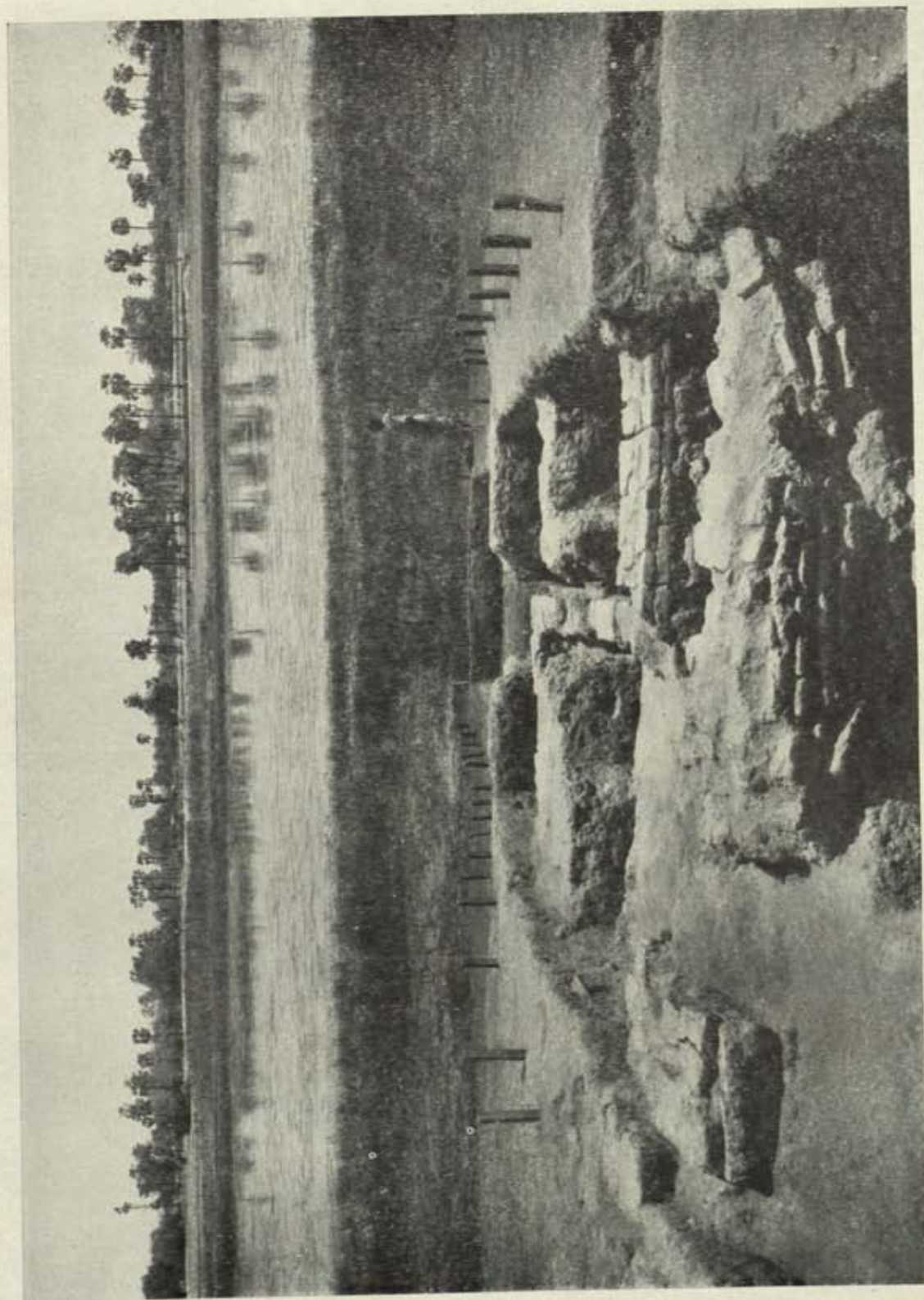
*Cutting VSC (Chak Rāmdās): a jar and concrete floor of Period Ib. See page 8*





*Cutting VSC (Chak Rāmdās) : a skeleton of a hyaena in section and plans of two ovens of Period Ib. See pages 8 and 67*





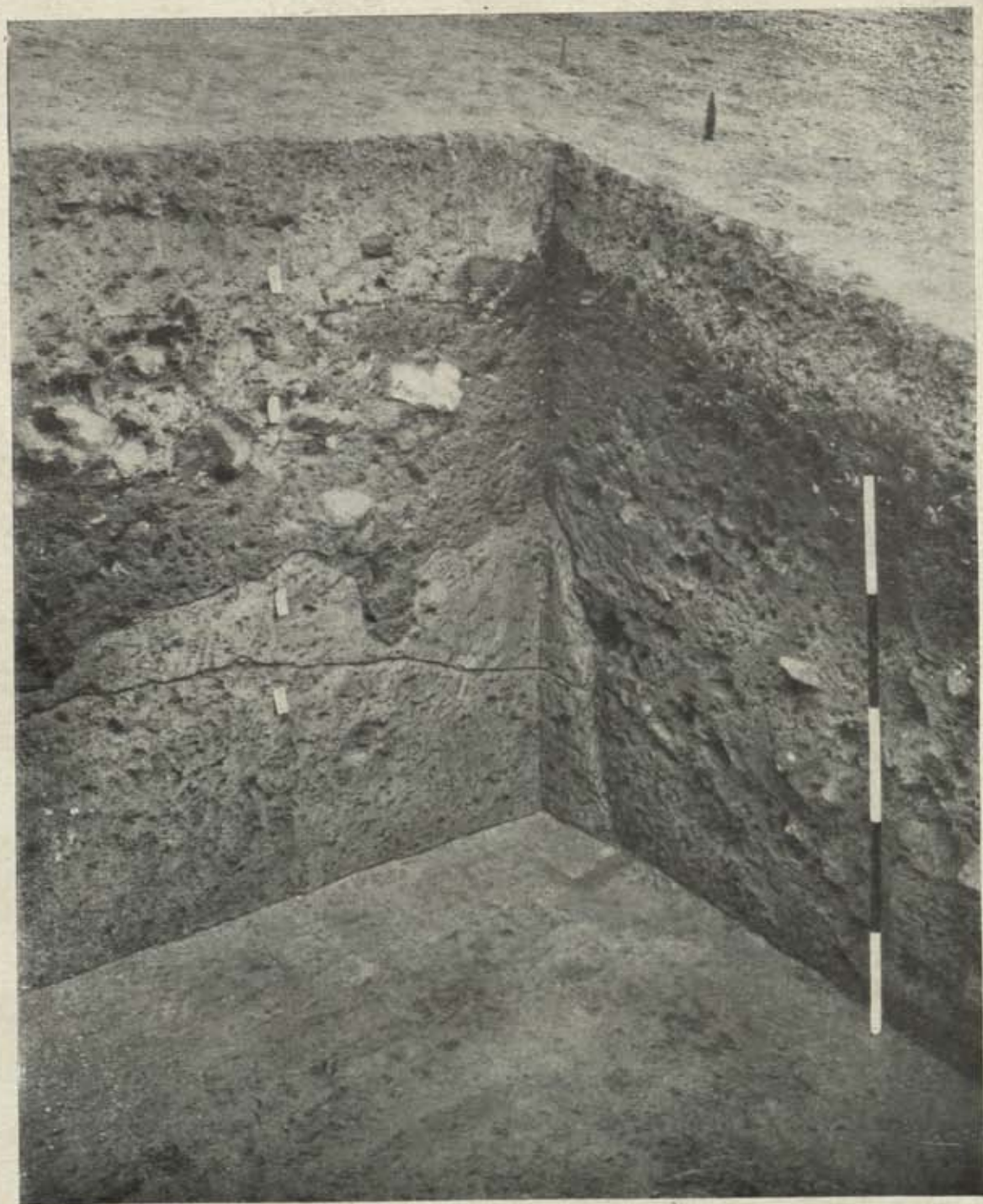
*Cutting VS I: General view with the moat in the background. See page 8*





*Cutting VS II : Structures of Periods II to IV. See page 11*





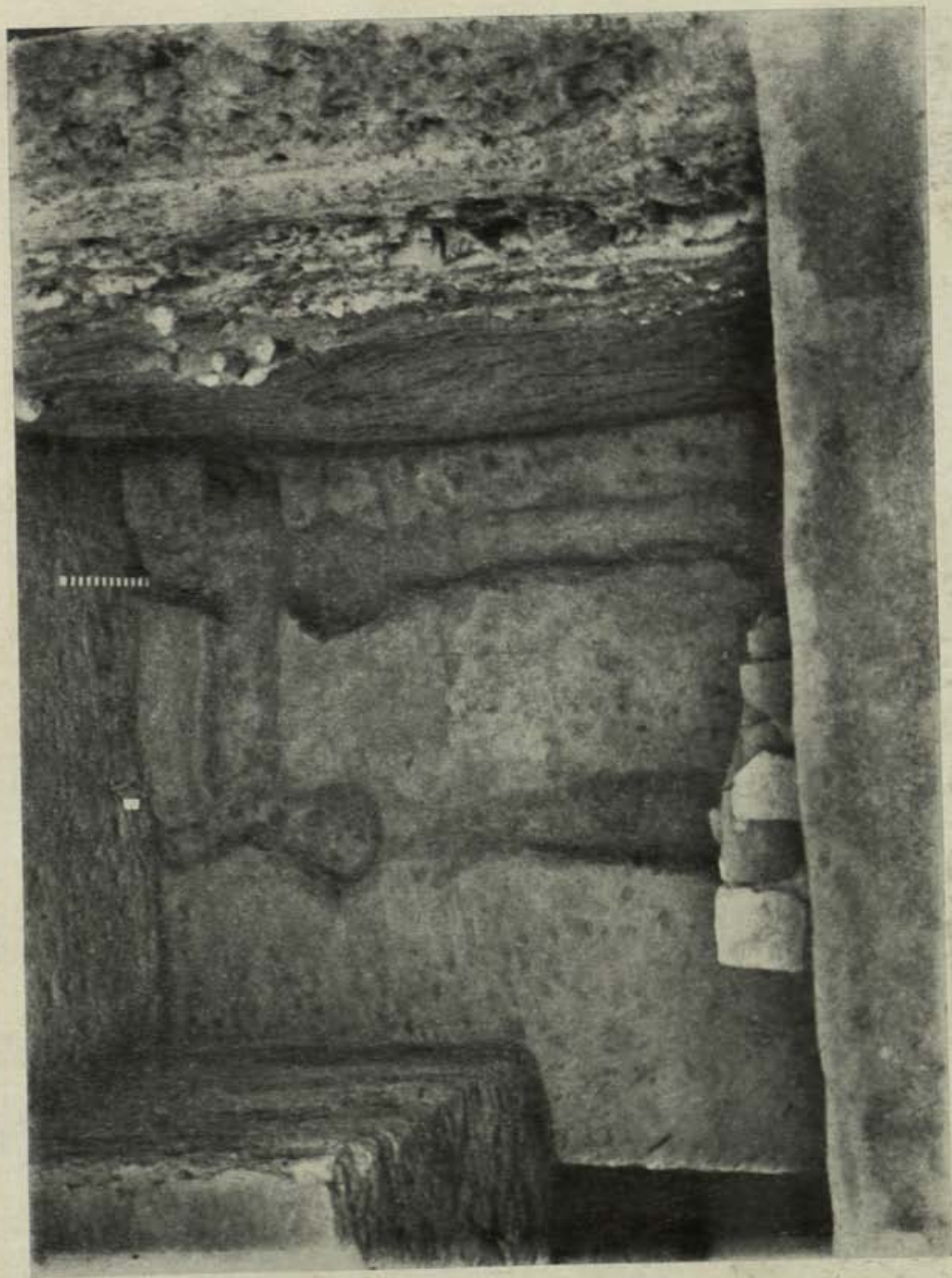
*Cutting VS III : Outer face of the mud-rampart. See page 13*





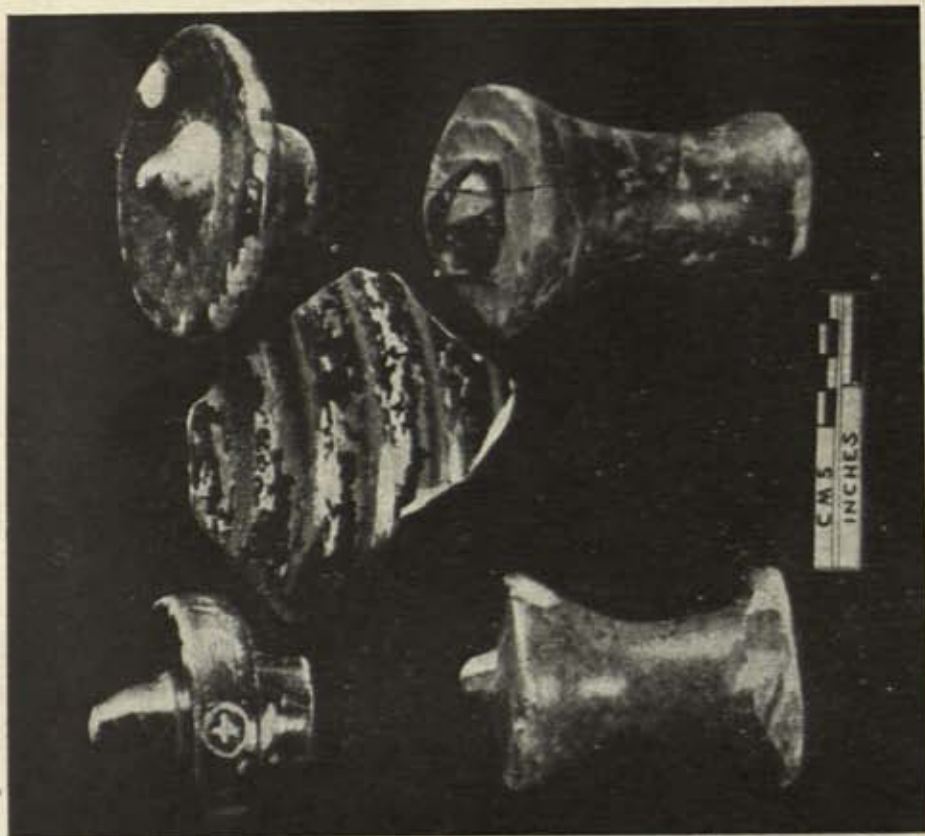
*Cutting VS IV : Structures of Period IV. See page 14*





*Cutting VS IV : Channel-like furnaces of Period Ib. See page 15*

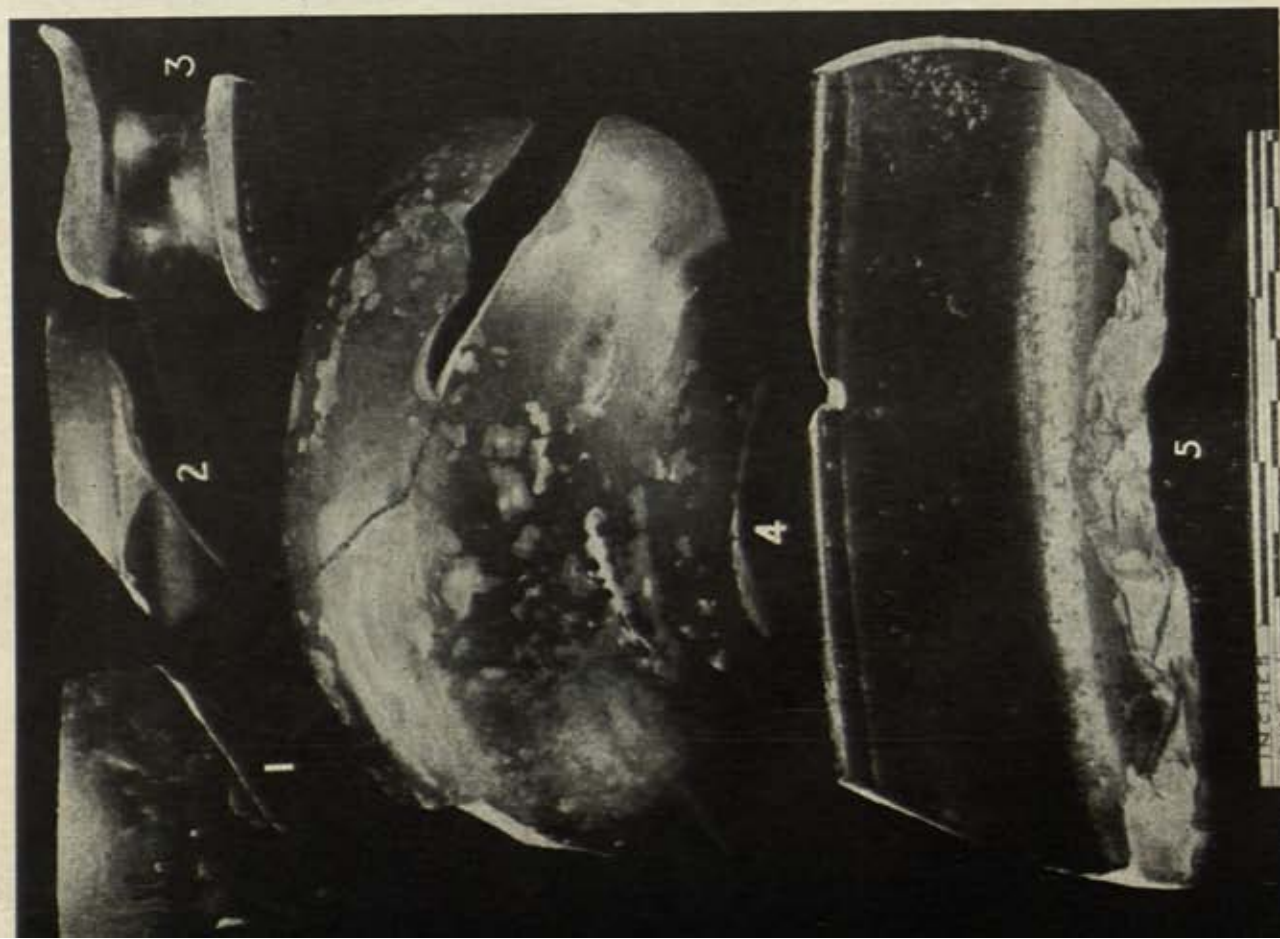




B. N.B.P. Ware. See page 16

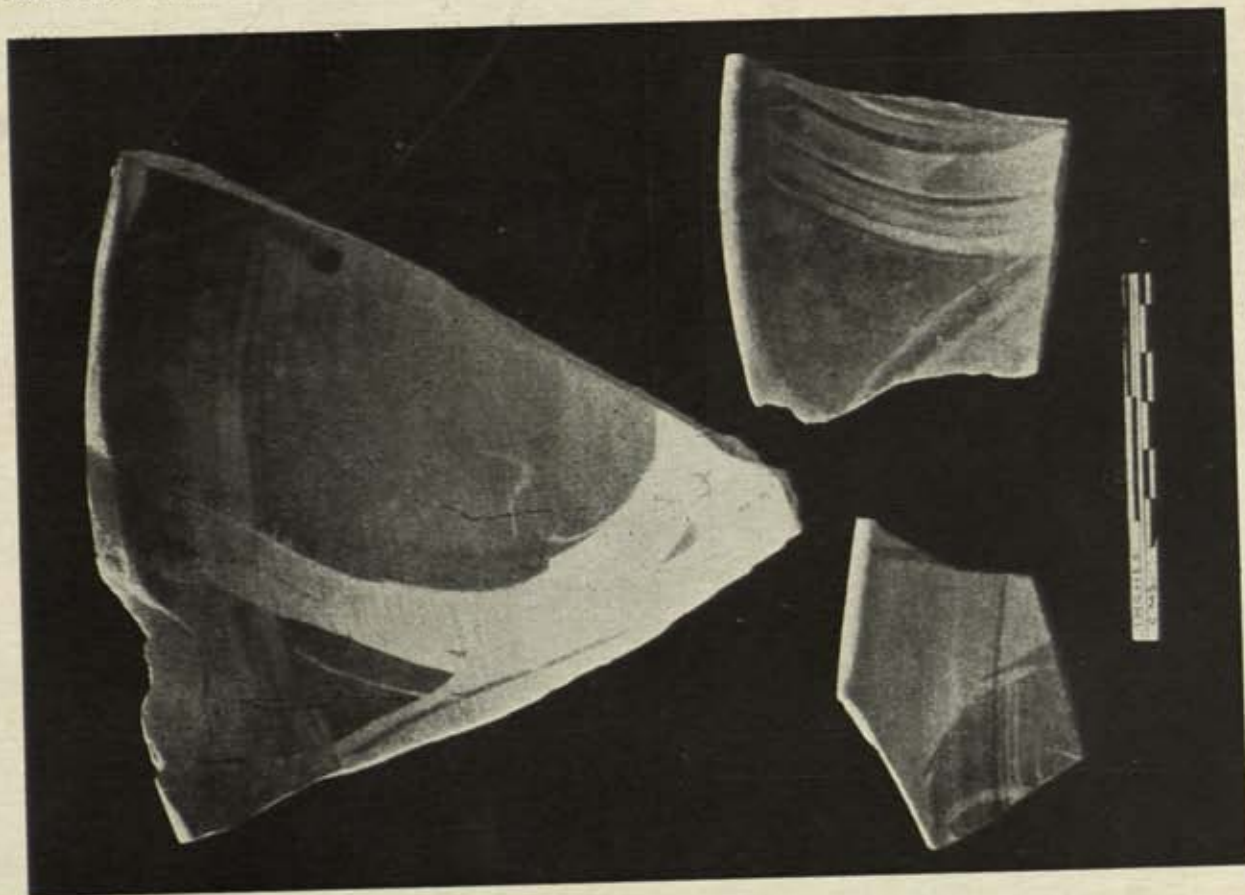


C. Spout—makara-mukha. See page 49



A. N.B.P. Ware. See page 18



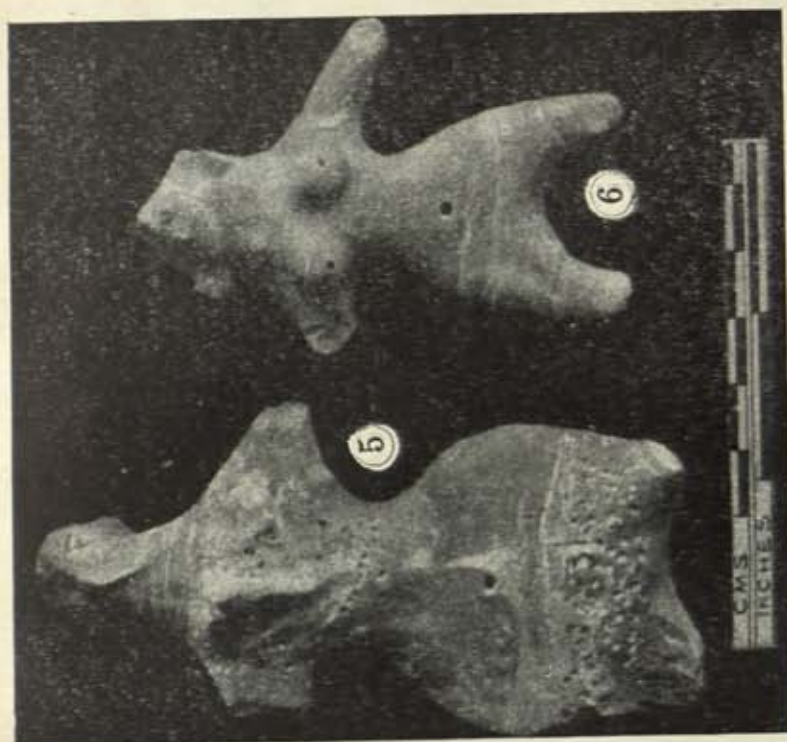


B. Painted sherds, Period Ia. See page 49

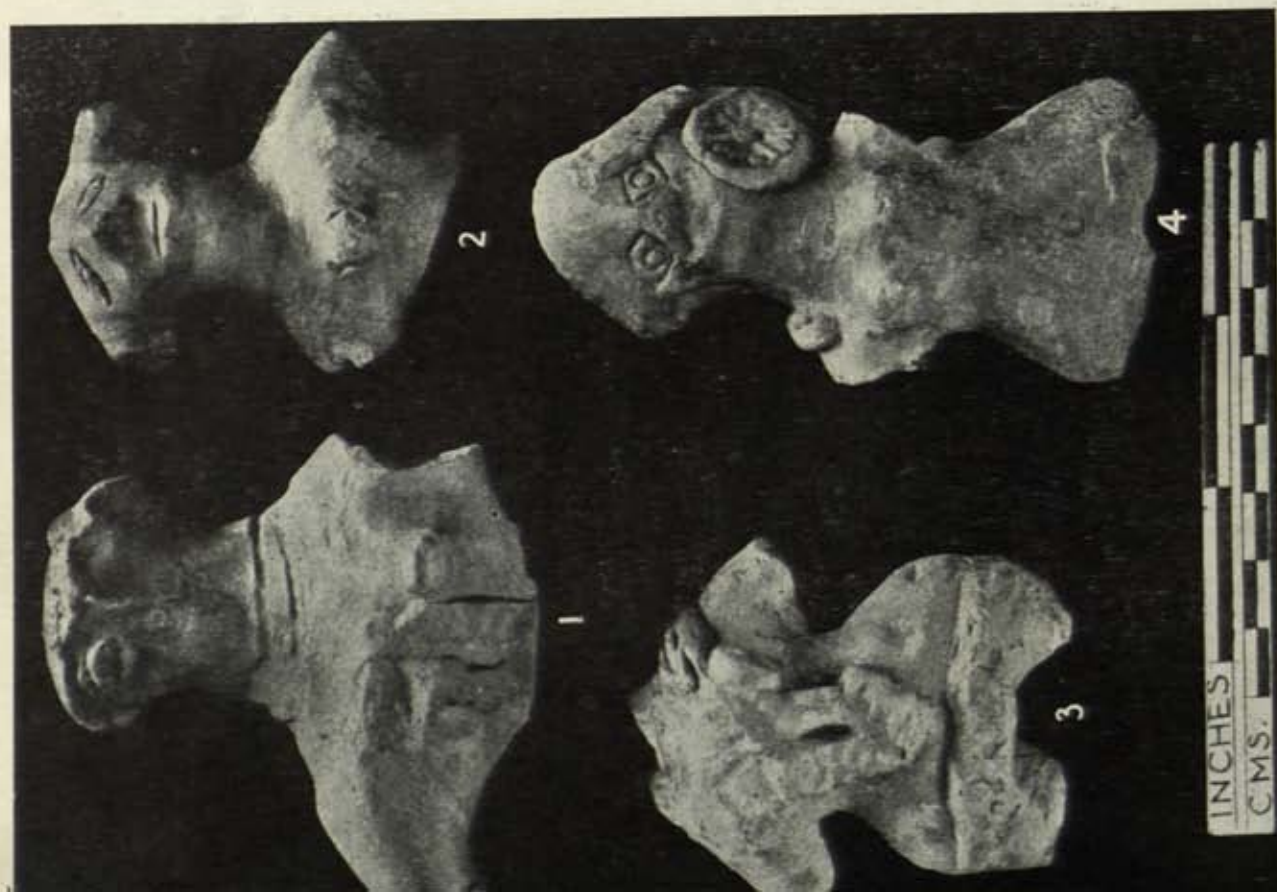


A. Stamped and incised sherds. See page 48





← A.  
B. →  
C. ↓



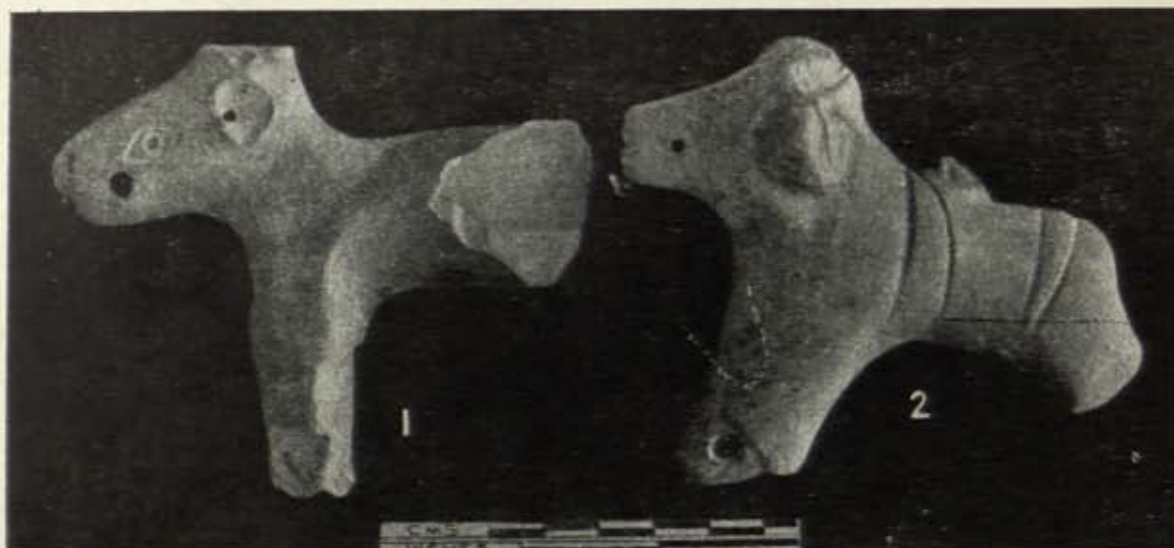
A-B. Mother Goddess figurines. See pages 50-1  
C. Naigamesa, No. 7. See page 53. Hand-Modelled  
Squatting homo figure, No 8. See page 54





Early moulded figurines. See page 52





A. *Terracotta Animals-on-wheels.* See page 54



B. *Terracotta Animals-on-wheels : Ram and bull.* See page 54





A. *Nāga* figurines. See page 55



B. Head of a horse, Period Ib. See page 55



C. Head of an elephant. See page 55



D. Hollow elephant figure, Period II. See page 55





A. A female head, Period II. See page 54



B. Early moulded terracottas : 1. A female deity with a winged shoulder; 2 a nāga. See page 52



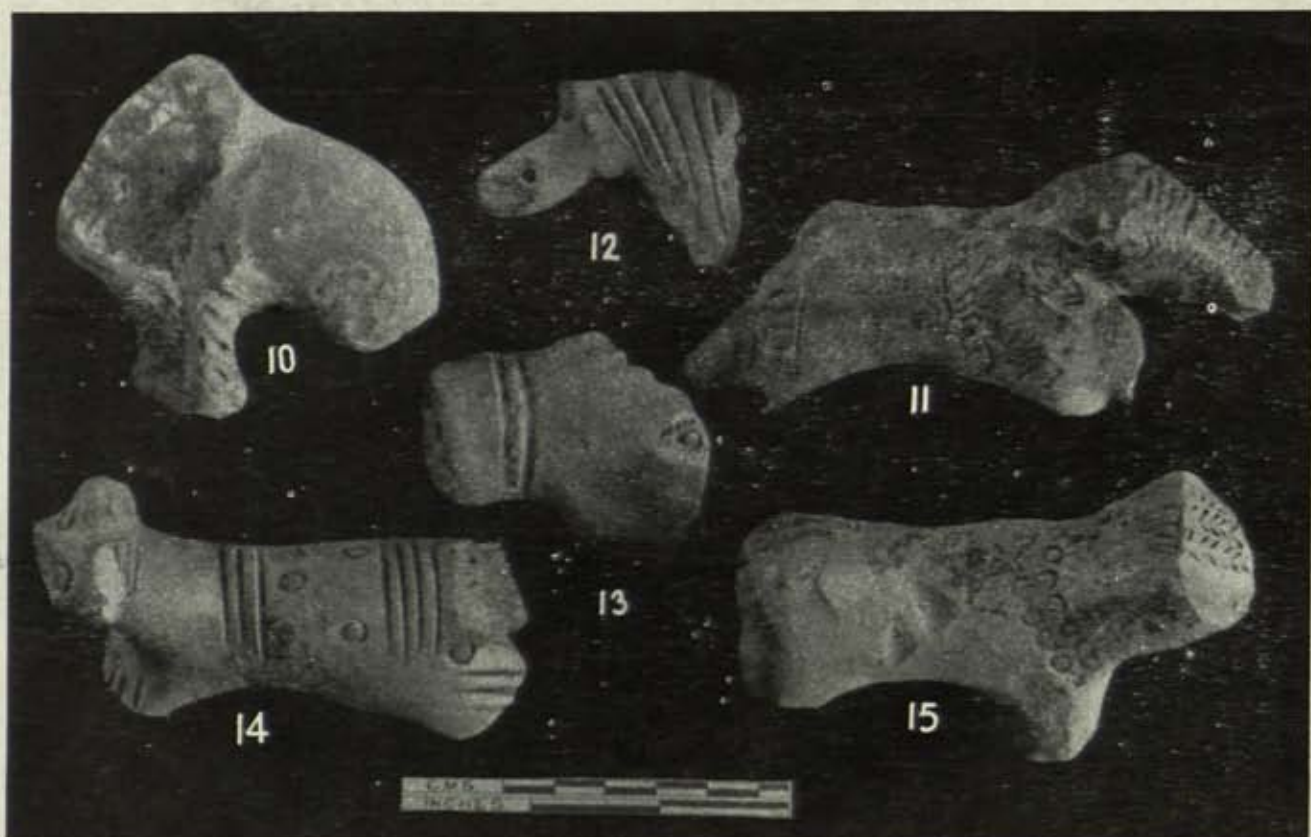


*Miscellaneous terracotta figurines. See page 53*





A. Dog figurines, Period Ib. See page 56

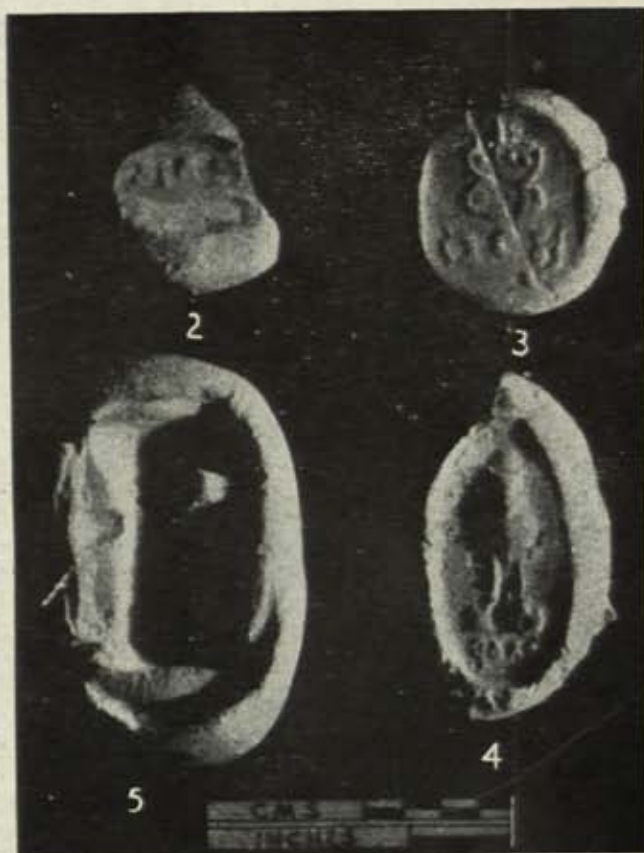


B. Animal figurines : elephant, nos. 10 and 11; horse, no. 12; bull, no. 13; unidentified animal figurines, nos. 14 and 15. See page 56

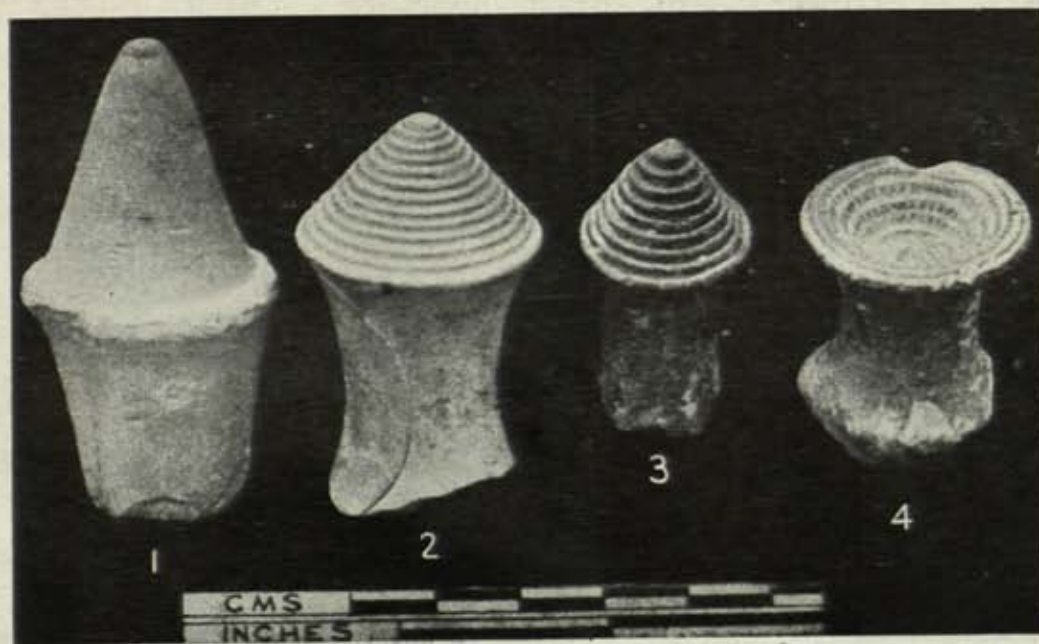




A. Sealing with a legend *Sresthi-nigamasya*.  
See page 56



B. Sealings, nos. 2 to 4; Seal mould, no. 5.  
See pages 56 and 57

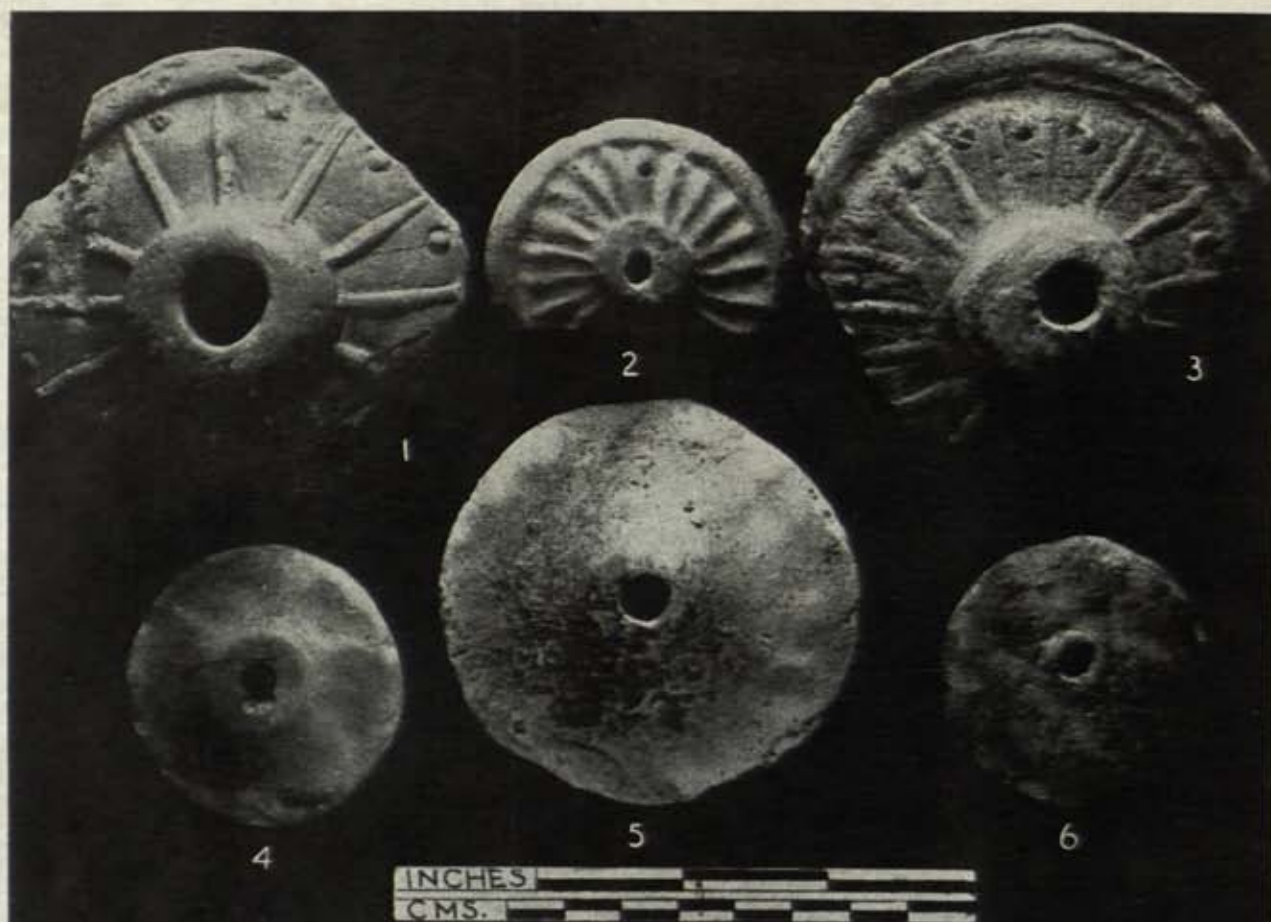


C. Terracotta Ear ornaments. See page 57



D. A spout representing a  
grotesque human head.  
See page 49





A. Terracotta toy wheels. See pages 57 and 58

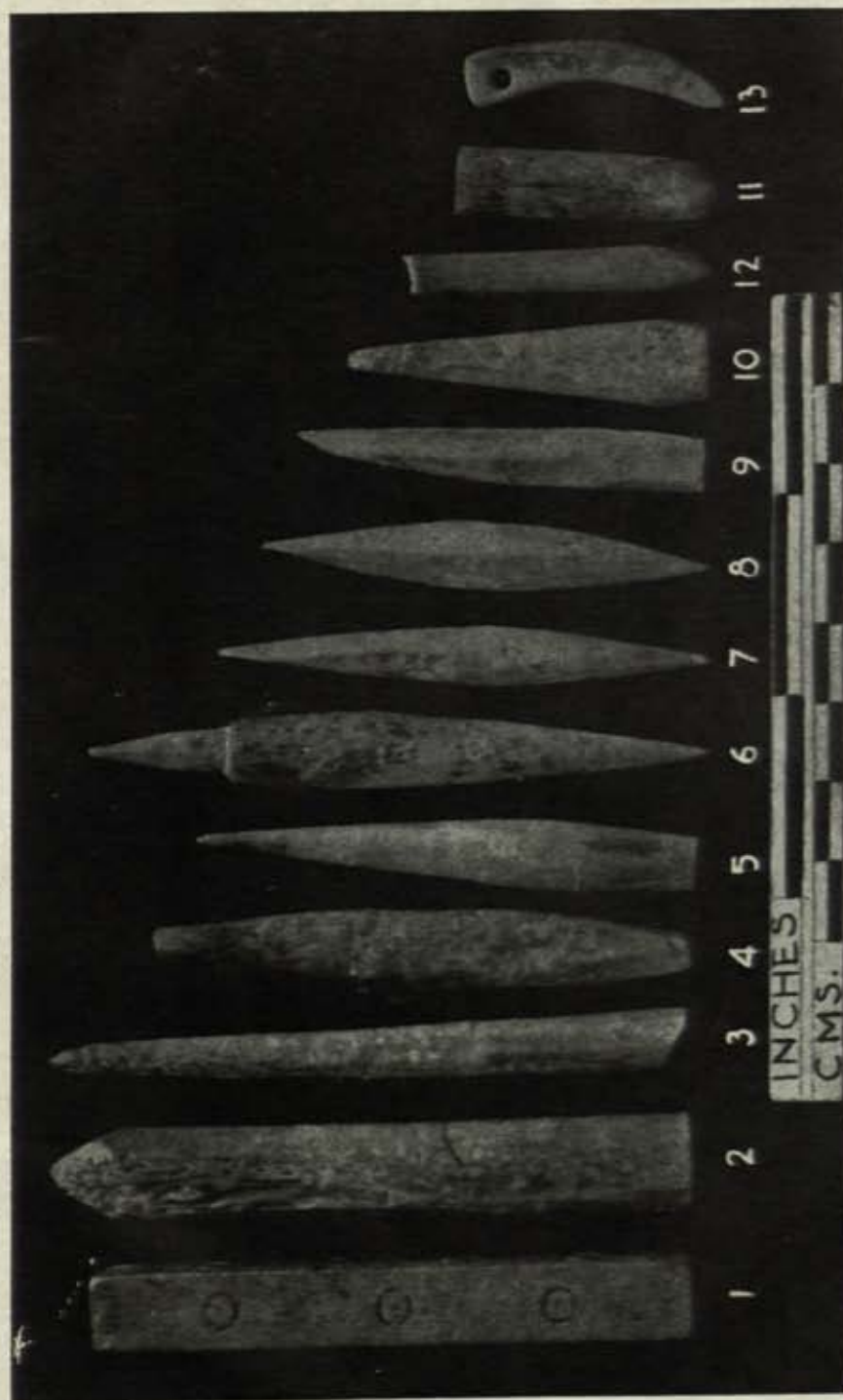


B. Skin rubber. See page 58



C. Mould from Period II. See page 58



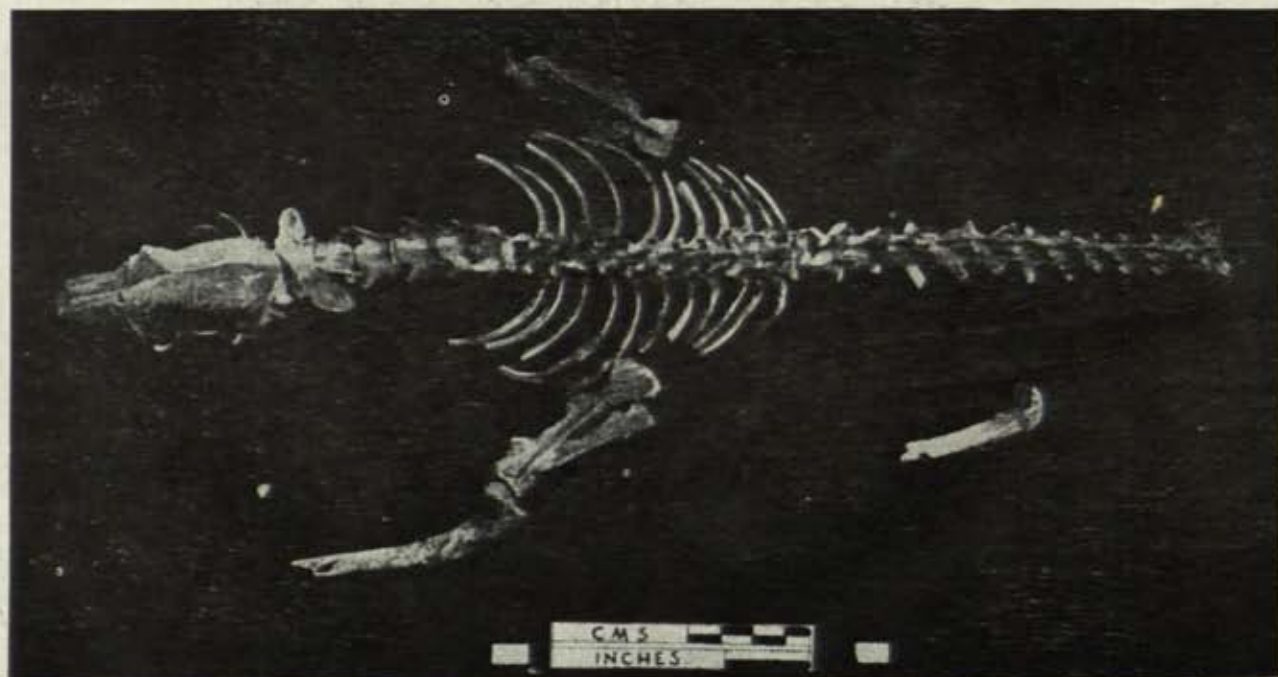


*Ivory and Bone Objects : Ivory die, no. 1; ivory antimony-rod, no. 2; bone-points, nos. 3 to 12; bone amulet, no. 13. See pages 59 and 60*





A. Shell bangles, nos. 1 to 3; bone disc, no. 4; ivory handle, no. 5.  
See pages 60 and 61

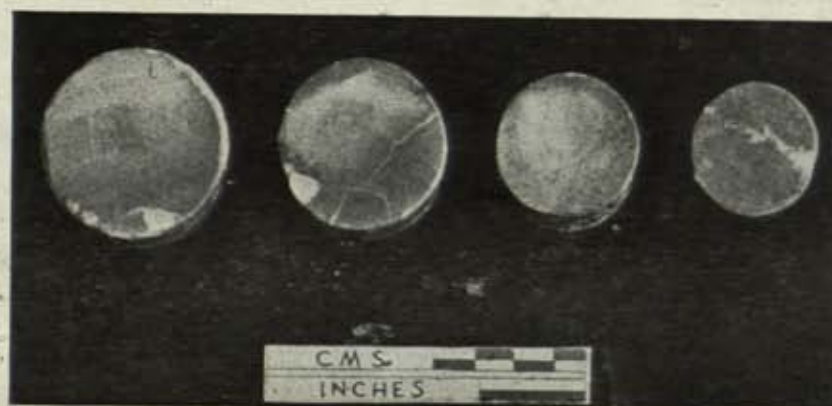


B. Skull and Skeleton of an Indian Hyaena. See page 67





A. *Steatite Votive Stone disc, Obverse and Reverse. See page 63*



B. *Jasper weights. - See page 64*

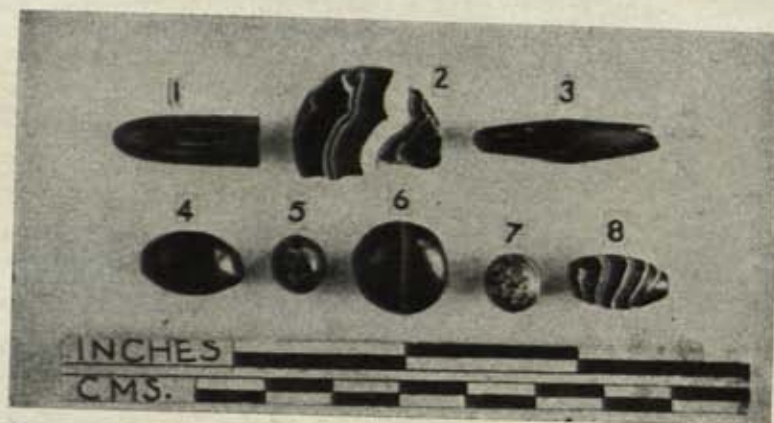


C. *Plaque of the Mother*

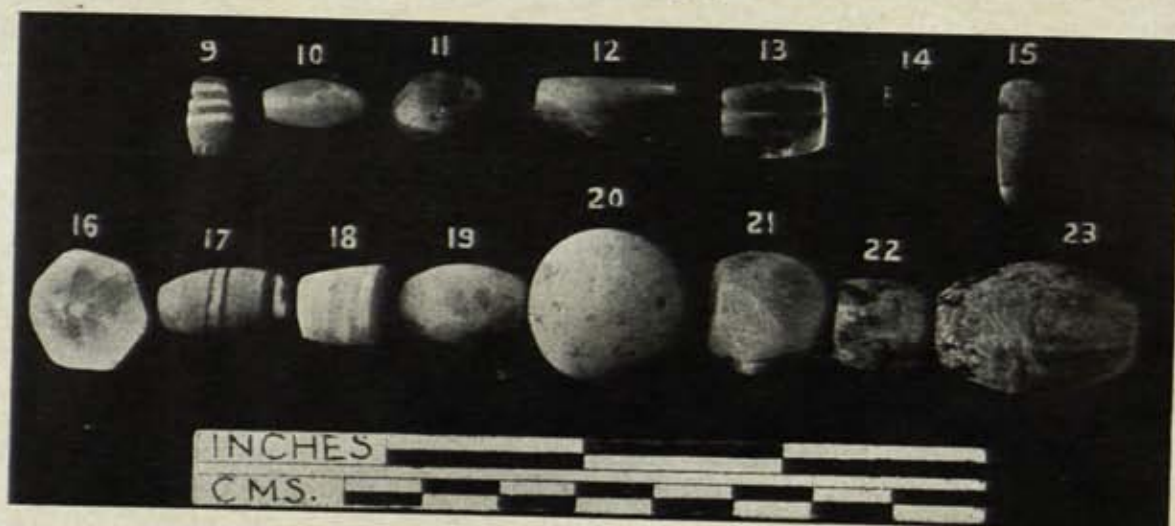


D. *Neolithic Stone Celt. See page 64*

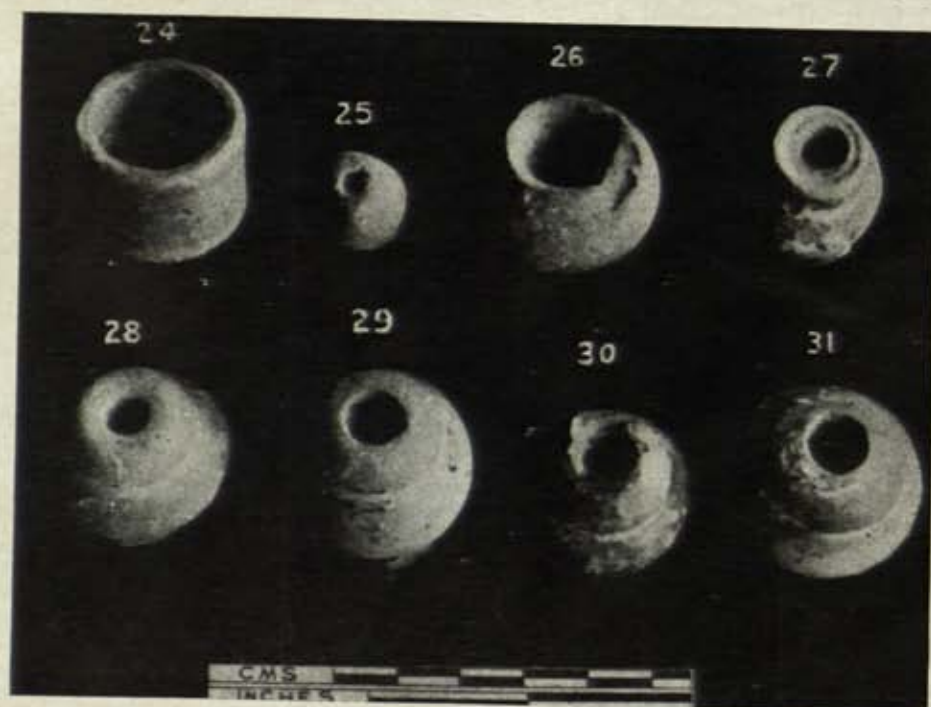




A. Beads : glass, nos. 1, 3, 4, 5 and 8. agate, nos. 2 and 6. granite, no. 7. See page 62

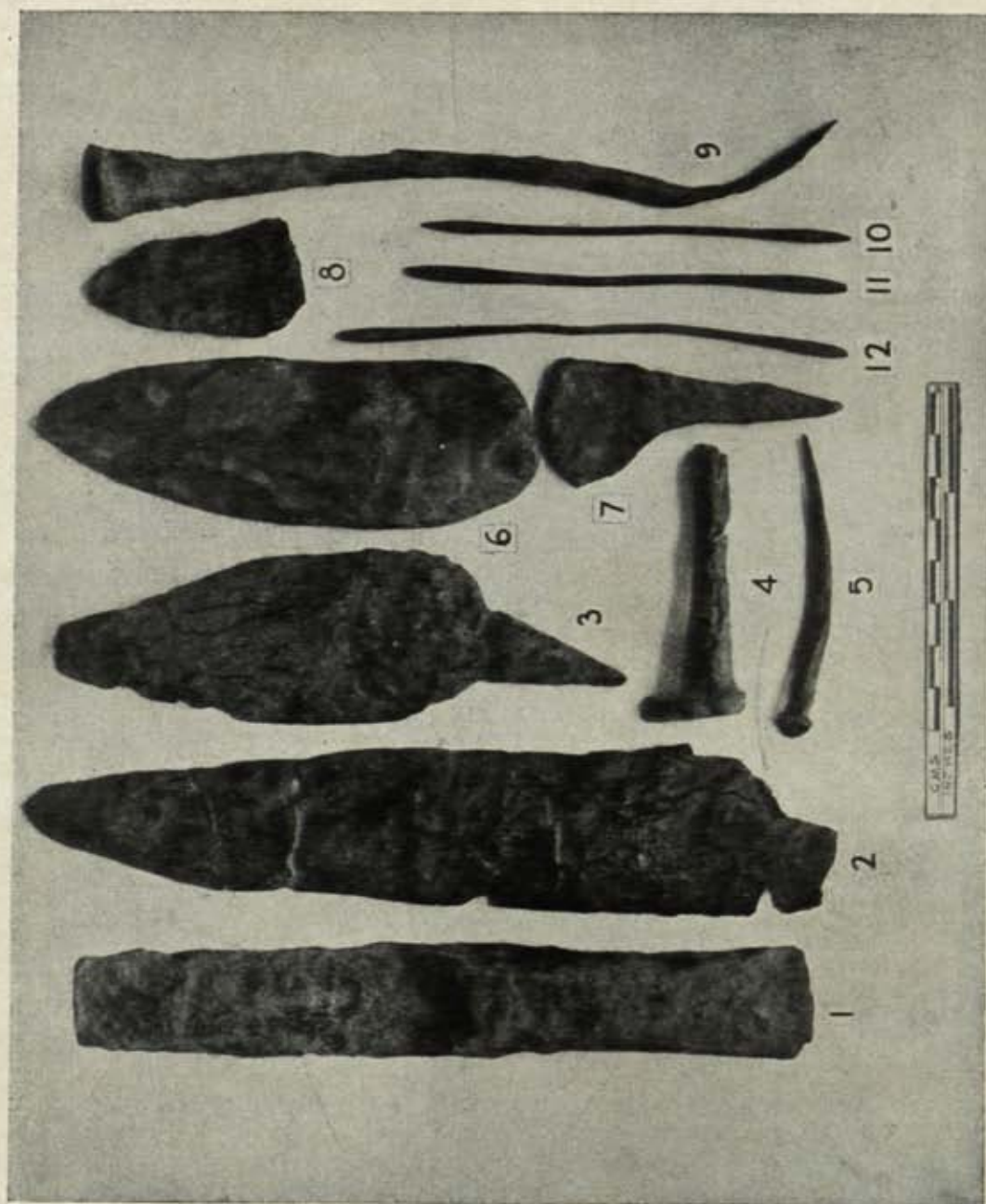


B. Beads : Carnelian, nos. 9, 10, 12 and 15. glass, nos. 11, 14, 22 and 23. Topaz, no. 13. Crystal, no. 16; agate, no. 17; Shell, nos. 18, 19, and 21; marble stone, no. 20. See pages 62 and 63



C. Beads : Terracotta. See page 62





*Iron and Copper Objects. See page 65*











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